

## 阅读申明

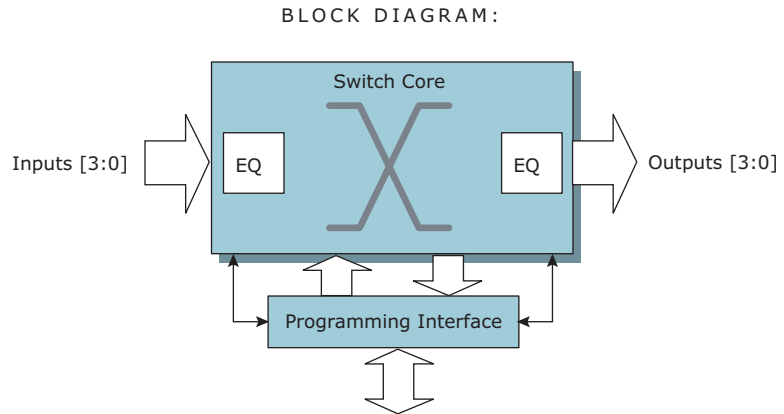
- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .



### 8.5 Gbps 4 × 4 Crosspoint Switch



Features	Benefits
8.5 Gbps non-return-to-zero (NRZ) data bandwidth	Transparent support for virtually all data rates and protocols
Fully non-blocking and multicasting switch core with per-pin signal inversion capability	Allows complete flexibility in routing and distributing signals
Multiple time-constant programmable input and output equalization	Compensates for multiple impairments in a signal path
Wide equalization adjustment range	Supports all types of interconnect media such as PCB, backplanes, and cable
Fully asynchronous operation with <1 ns latency	No adjustments based on data rate or reference clock required
LOS detection and forwarding	OOB forwarding for protocols such as SAS and SATA
Small 7 mm × 7 mm BGA package with 1.0 mm pin pitch	Convenient size and pin spacing for signal routing flexibility

#### Applications

- Wideband signal switching and clean-up
- Line driver or receiver
- Backplane signal fanout, driver, or receiver
- Copper cable
- PCB signal enhancement
- High-speed signal conditioner

## General Description

The VSC3303 is a 4-port 8.5 Gbps asynchronous switch with advanced signal equalization designed for high-speed serial backplanes and cable interconnect applications. VSC3303 switches have multicast and loopback capability for great flexibility in allocating and routing signals in a broad range of applications. The VSC3303 includes dual time-constant equalization, significantly reducing jitter associated with driving multigigabit signals across backplanes and cables.

Using a fully asynchronous architecture supports any data rate or protocol on any channel without the need for an external reference clock. This gives the VSC3303 wire-like interoperability in virtually any application that uses binary signaling.

The VSC3303 can also be used as a buffer that simplifies and enhances the design of high-speed signal paths by providing signal equalization at both inputs and outputs to reduce or reverse signal degradation due to transmission line effects.

Featuring programmable input signal equalization and output pre-emphasis, each with multiple time constants, the VSC3303 is also ideal for countering signal degradation over a wide variety of transmission media types and lengths.

Typical power consumption for the device is 200 mW per active channel, and unused channels can be de-activated to save the power associated with those ports. The output

drivers for the VSC3303 also feature a wide supply voltage range from 1.8 V to 3.3 V for flexibility in matching the output swing to the application requirements.

The VSC3303 has a loss of signal (LOS) detector with programmable thresholds on every input port. LOS forwarding can be enabled for each of the outputs, which will cause the outputs to be squelched in response to a LOS detect at the corresponding input, thereby propagating signal envelopes through the switch.

VSC3303 programming is through a standard two-wire serial interface. The interface address can be hardwired through static pins or through a proprietary two-pin interface that allows for address assignment after power-up.

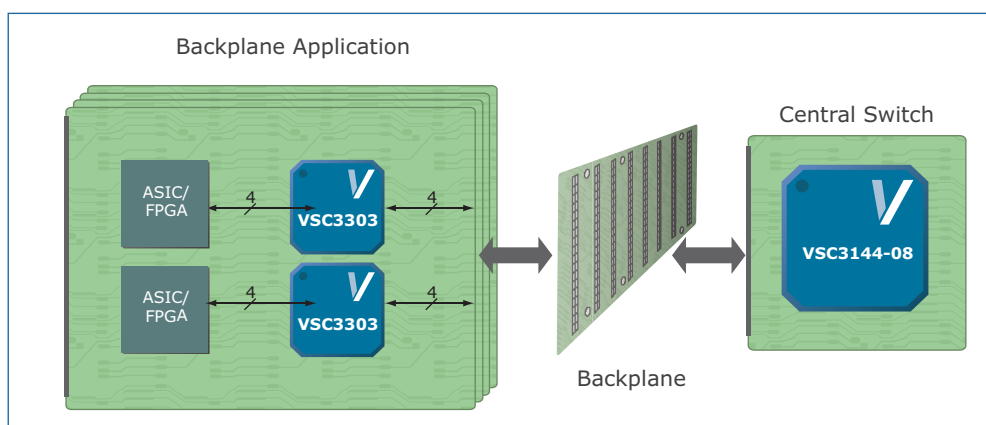
## Specifications

- 8.5 Gbps NRZ per-channel data rate
- 2.5 V core; 1.8 V, 2.5 V, and 3.3 V high-speed I/O

## Related Vitesse Products

Visit [www.vitesse.com](http://www.vitesse.com) for information about these related Vitesse products:

- VSC3303: 8.5 Gbps 4 × 4 Crosspoint Switch
- VSC8238-03: 8.5 Gbps Transceiver with Equalization and Clock and Data Recovery
- VSC7344-01: 24-Port Ethernet MAC



## Vitesse Semiconductor Corporation

741 Calle Plano • Camarillo, CA 93012 USA • Tel: +1.800.VITESSE • +1.805.388.3700 • Fax: +1.805.987.5896 • [www.vitesse.com](http://www.vitesse.com)

© 2009 by Vitesse Semiconductor Corporation. VPPD-02410 Revision 1.0. Vitesse Semiconductor Corporation ("Vitesse") retains the right to make changes to its products or specifications. As such, all information in this document, including descriptions of features, functions, performance, technical specifications and availability, is subject to change without notice at any time, and Vitesse assumes no responsibility for use of any information herein. Nothing contained herein conveys to the purchaser of microelectronic devices any license under the patent or any other intellectual property rights of any manufacturer. Vitesse®, and numerous other trademarks, are trademarks of Vitesse in the United States and/or other jurisdictions. Other trademarks used herein that are not the property of Vitesse are the property of their respective owners. While Vitesse products support IEC 60825, use of Vitesse products does not ensure compliance to IEC 60825. Buyers are responsible for ensuring compliance to IEC 60825. Buyers must fully indemnify Vitesse for any damages resulting from non-compliance to IEC 60825.