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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

VSC8256

Quad Channel 1G/10GBASE-KR to SFI Ethernet Repeater

VSC8256 is a quad 1G/10G serial-to-serial, protocol-agnostic repeater/retimer that integrates hardware-based host-side only 10GBASE-KR auto-negotiation and training in a small form factor, low-power FCBGA ideal for a wide array of board-level signal integrity applications.

The quad channel VSC8256 device operates as a 10 GbE LAN, 10G WAN, 40 GbE (4 x 10G), as well as 1G legacy KR repeater with integrated cross-point switching enabling configurable line ordering for protection and broadcasting flexibility.

Target applications for the VSC8256 device include switching, IP edge router connectivity, rack mount server access through backplane, fiber and copper cable connectivity, and standalone server access (in LAN on motherboard designs or separate network adapters).

The VSC8256 device delivers excellent jitter attenuation with low power. It is also well-suited for SFP+ and QSFP+ based optical modules and direct attach copper cabling as well as challenging backplane interface applications.

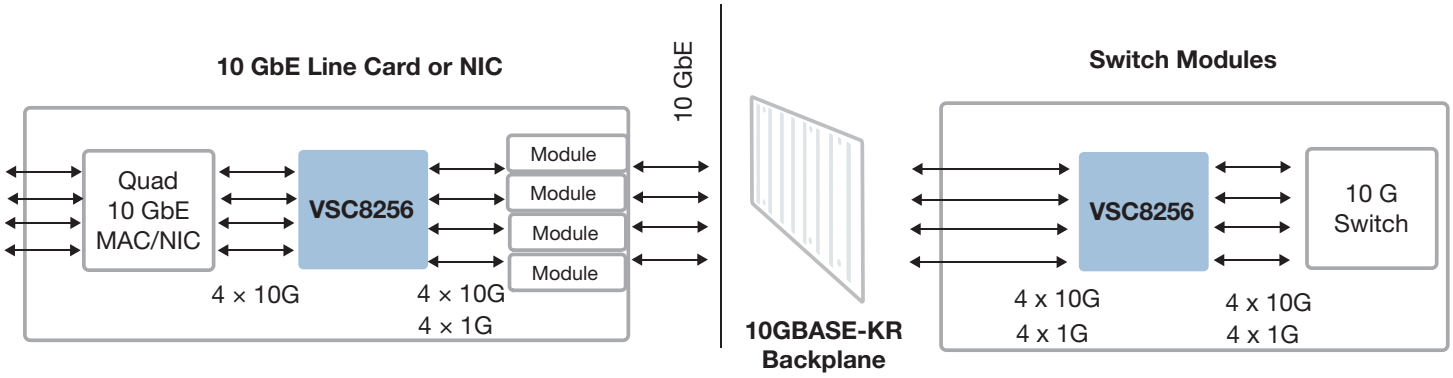
Its highly flexible clocking options support LAN and WAN operation using a single 156.25 MHz reference clock rate. Support for Synchronous Ethernet (SyncE) is also included.

Highlights

- Standards supported include IEEE 802.3ae, IEEE 802.3ap, SFF-8431, ITU-T G.8261, and ITU-T G.8262
- Data rates supported include 10.3125 Gbps LAN mode, 9.95328 Gbps WAN mode, and 1.25 Gbps mode
- Signal conditioner mode supports protocol-agnostic data rates
- Support for SFP+/QSFP+ line modules and 10GBASE-KR backplanes between 1.25 Gbps and 10.3125 Gbps (including host-side auto-negotiation and training)

Applications

- Multi-port serial-to-serial signal conditioning
- 10GBASE-KR-compliant backplane transceivers
- Multi-port XFI/KR to SFI/SFP+ 10 GbE switch cards, router cards, and network adapters



VSC8256

Quad Channel 1G/10GBASE-KR to SFI Ethernet Repeater

Built-in Self-Test and SyncE

The VSC8256 device provides a complete suite of on-chip instrumentation including built-in self-test (BIST) functions, line-side and client-side circuit loopbacks, pattern generation, and error detection.

Range of Support

- Compliant with IEEE 802.3-2012 and SFF-8431 electrical (SFI) specifications
- 9.95 Gbps WAN and 10.3 Gbps LAN operation, as well as 1.25 Gbps Ethernet support
- Standard SFP+ and QSFP+ applications
- 10GBASE-KR (IEEE 802.3-2012) for 10G backplanes, including 1.25 Gbps and 10.3 Gbps auto-negotiation (host-side)
- Adaptive equalization receiver and programmable multi-tap transmitter pre-emphasis
- SPI, MDIO, and two-wire serial slave management interfaces

Key Specifications

- 950 mW, typical, for each bidirectional channel
- 1.2 V and 1.0 V core power supplies (2.5 V TTL supply)

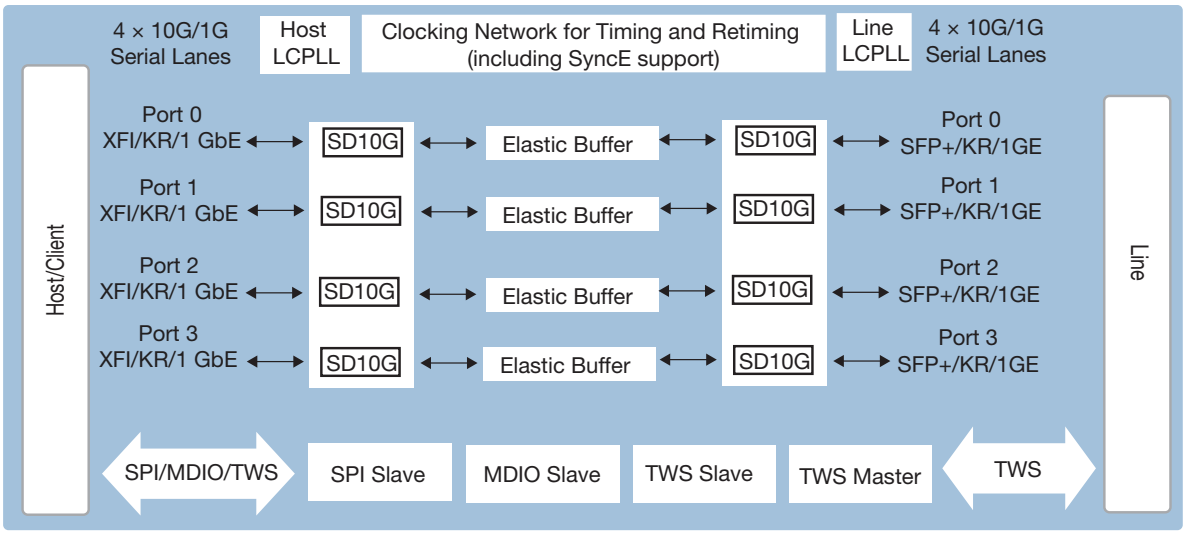
Flexibility and Tools

- VScope input signal monitoring integrated circuit
- Host-side and line-side loopbacks with BIST functions
- Programmable analog signal, invert, amplitude, slew, pre-emphasis, and equalization
- Flexible clocking options that enable Layer 1 support for Synchronous Ethernet
- Passive copper cable support for lowest connectivity cost

Related Products

Visit www.microsemi.com for information about these related products:

- VSC8257 and VSC8258
- VSC8489, VSC8490, and VSC8491
- VSC8582 and VSC8584
- VSC7442, VSC7444, and VSC7448
- VSC7460, VSC7462, and VSC7468



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
email: sales.support@microsemi.com
www.microsemi.com

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense and security, aerospace, and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs, and ASICs; power management products; timing and synchronization devices and precise time solutions; voice processing devices; RF solutions; discrete components; enterprise storage and communications solutions, security technologies, and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California, and has approximately 4,800 employees worldwide. Learn more at www.microsemi.com.

VPPD-03818. 1.1. 4/16