



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

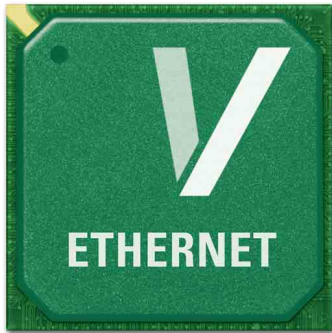
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



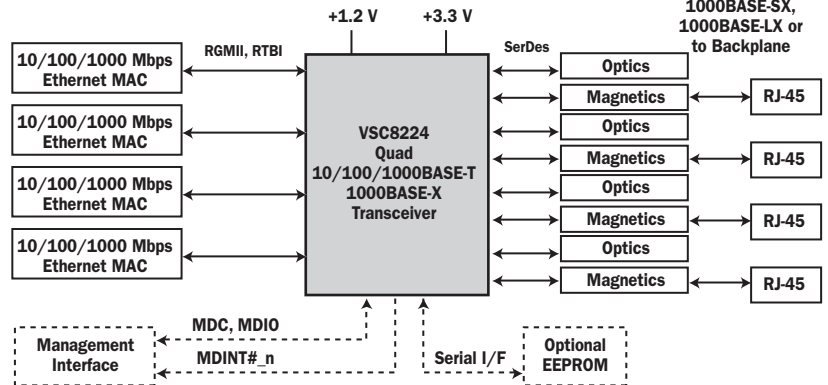
VSC8224

VITESSE

Quad Port 10/100/1000BASE-T and 1000BASE-X PHY with RGMII and RTBI MAC Interfaces



Copper + Optical Media (RGMII to SerDes)



FEATURES:	BENEFITS:
▶ Lowest Power Consumption in the Industry at Less Than 640m W/port (1000BASE-T mode)	▶ Eliminates Heatsinks and Fans for Gigabit to the Desktop LAN Switches
▶ Patented, Low EMI Line Driver with Integrated Line Side Termination Resistors	▶ Removes 576 Passive Components in 48-port Switch Applications
▶ Supports RGMII v1.3 (2.5V & 3.3V) & v2.0 (1.5V HSTL)	▶ Compatible with a Wide Variety of Parallel I/F Switch ICs
▶ User-programmable RGMII Timing Compensation	▶ Simplifies PCB Layout; Eliminates PCB Trombones
▶ High Performance 1.25 Gbps SerDes	▶ Supports CAT-5, Fiber Optic, and Backplane Interfaces from a Single Device
▶ Auto-media Sense Detects and Configures to Support Fiber or Copper Media on a Per Port Basis	▶ Single Chip Solution for Flexible Media Support
▶ User-configurable Copper or Fiber Link Selection Preference with Programmable Interrupt and Signal Detect I/O Pins on Each Port	▶ Ensures Plug-n-play Link Configuration when Connected to Any Copper, Fiber, or Backplane Link Partner
▶ Compliant with IEEE 802.3 (10BASE-T, 100BASE-TX, 1000BASE-T, 1000BASE-X) Specifications	▶ Ensures Seamless Deployment Throughout Copper and Optical Networks with Industry's Highest Tolerance to Noise and Substandard Cable Plants
▶ >10kB Jumbo Frame Support with Programmable Synchronization FIFOs	▶ Provides for Maximum Jumbo Frame Sizes in Custom SAN and LAN Systems
▶ Five Direct Drive LEDs with On-chip Filtering ▶ Serial LED Interface Option	▶ Eliminates External Components and EMI Issues ▶ Provides Maximum System Design Flexibility
▶ VeriPHY™ Cable Diagnostics Software Suite	▶ Enables Network Manufacturers to Simplify Deployment and Improve Network Management Capabilities of Gigabit Ethernet Links
▶ Full Suite of BIST, MAC, and Far-end Loopback Modes	▶ Simplifies Comprehensive In-system Test to Ensure the Highest Product Quality

APPLICATIONS:

- ▶ High Density 10/100/1000BASE-T and 1000BASE-X LAN & MAN Switches and Routers
- ▶ Gigabit Ethernet-based SAN, NAS, and MAN Systems
- ▶ Workgroup LAN Switches and Routers
- ▶ High Performance Workstations and Multi-Port Server NICs
- ▶ PICMG 2.16 and 3.0 Backplane Applications
- ▶ Multi-Port Fiber to Copper Media Converters

GENERAL DESCRIPTION:

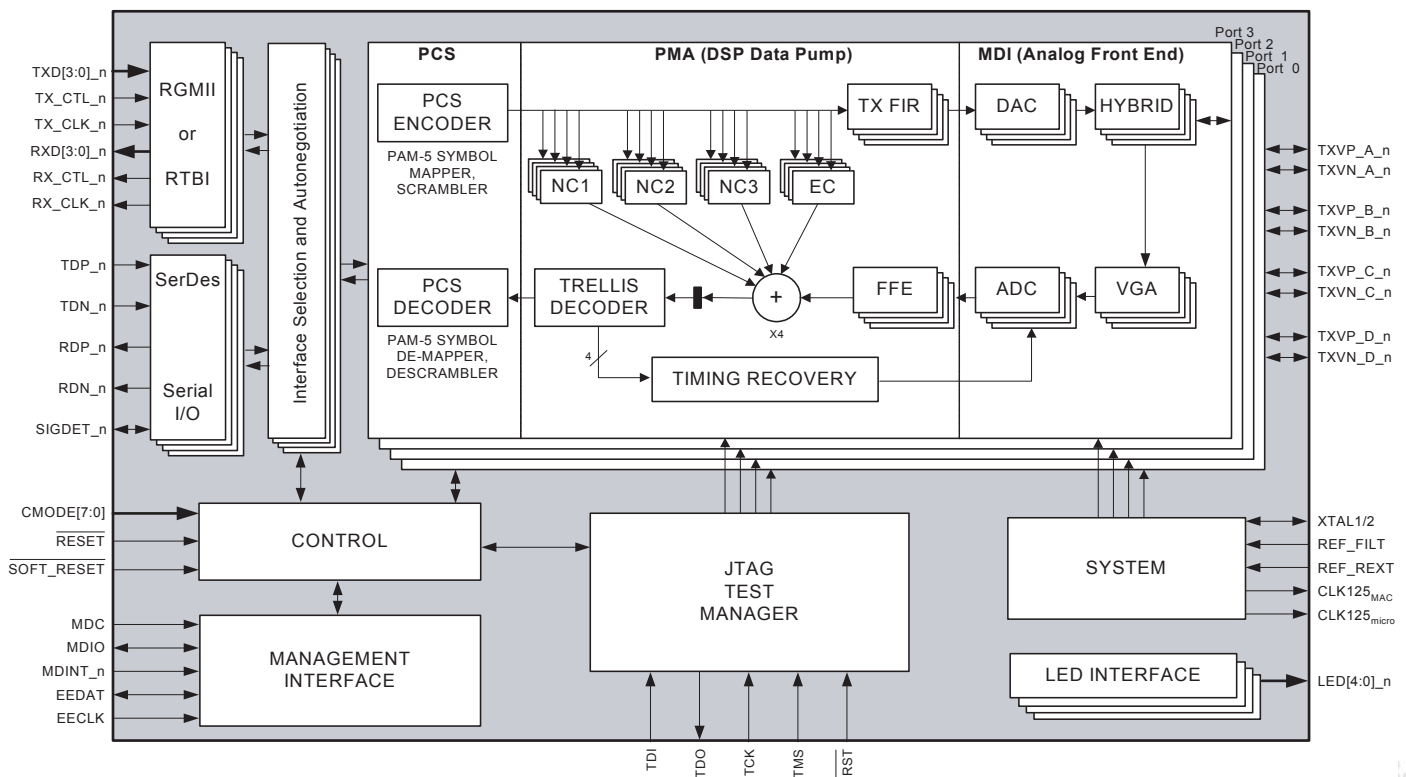


The VSC8224 is the industry's smallest, lowest power quad port Gigabit Ethernet transceiver and is ideal for multi-port switch and router applications. In 1000BASE-T mode, the VSC8224's power consumption is 30% lower than the next best competitor. In RGMII-to-SerDes applications, its best-in-class power consumption of 145mW per port is more than 40% lower than that of competitors. The device's compact 19mm x 19mm BGA package makes it ideal for high-density switch applications. Vitesse's mixed signal and DSP architecture yields robust performance, supporting both full and half duplex 10BASE-T, 100BASE-TX, and 1000BASE-T over >140m of Category 5, unshielded twisted pair (UTP) cable, with industry leading tolerance to NEXT, FEXT, Echo, and system noise.

SPECIFICATIONS:

PARAMETER	TYP	UNIT	COMMENTS
P_D	<640	mW	Steady state power consumption per port (1000BASE-T)
Serial Data Rate	1.25	Gbps	SerDes interface data rate
VDD I/O	3.3, 2.5, 1.5	V	I/O power supply voltage options
VDDA	3.3	V	Analog supply voltage
VDDDIG	1.2	V	Core power supply voltage
F_{TOL} (REFERENCE)	25	MHz	Crystal parallel resonant frequency (+/- 100ppm tolerance)

BLOCK DIAGRAM:



For more information on Vitesse Products visit the Vitesse web site at www.vitesse.com or contact Vitesse Sales at (800) VITESSE or sales@vitesse.com

Vitesse, ASIC-Friendly, FibreTimer, TimeStream and Snoop Loop are trademarks of Vitesse Semiconductor Corporation. All other trademarks or registered trademarks mentioned herein are the property of their respective holders. Vitesse Semiconductor Corporation ("Vitesse") retains the right to make changes to its products or specifications to improve performance, reliability or manufacturability. All information in this document, including descriptions of features, functions, performance, technical specifications and availability, is subject to change without notice at any time.

741 Calle Plano
 Camarillo, CA 93012, USA
 Tel: +1 805.388.3700
 Fax: +1 805.987.5896
www.vitesse.com