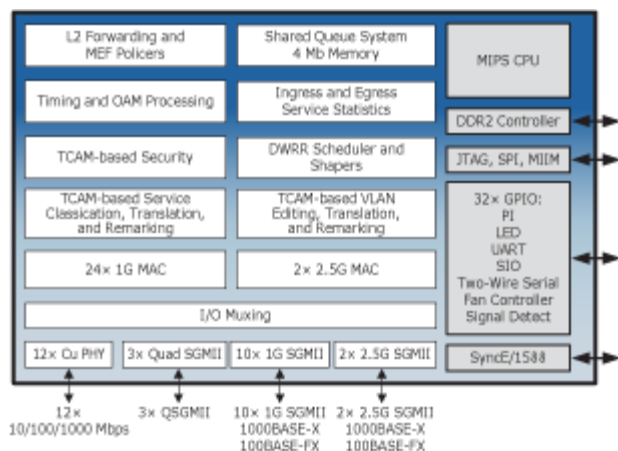


26-Port Layer 2 Gigabit Ethernet Switch with 12 Fully Integrated Copper PHYs and VeriTime™







VSC7429 is the industry's first fully integrated 26-port Ethernet switch with 12 Gigabit Ethernet copper PHYs in a single package. In conjunction with the VSC8512 12-port PHY, 24/26-port switches can be designed using only two ICs. VSC7429 is intended for Telecom and Carrier Ethernet applications, supporting MEF service delivery and timing over packet solutions for IEEE 1588v2 and Synchronous Ethernet. VSC7429 uses VeriTime™, Vitesse's patent-pending distributed timing technology that delivers the industry's most accurate IEEE 1588v2 timing implementation. The device supports combinations of up to 26 SGMII ports consisting of 12 GbE Cu PHYs, 12 SGMII interfaces, two of which support 1G/2.5G, and up to three QSGMII ports. One of the SGMII ports can be dedicated to the CPU for packet insertion and extraction. VSC7429 meets the IEEE 802.3az requirements for green energy efficient Ethernet through Vitesse's ActiPHY™ and PerfectReach™ energy efficient modes. A powerful embedded 416MHz MIPS processor 32-bit CPU with DDR2 external memory and DMA-

based frame extraction and insertion supports timing over packet, Ethernet OAM, and performance monitoring. VSC7429 is an excellent choice for Mobile backhaul and Microwave backhaul applications, and for service provider demarcation points in Edge and Access devices. A comprehensive application programming interface (API) and software package are provided for Carrier Ethernet applications. The software package integrates easily with third-party software, preserving existing software investments while adding new, enhanced carrier functionality.

Product Variants	Description
VSC7429XJG-02	Latest generation 672-pin 27 x 27 mm thermally enhanced BGA lead-free second-level interconnect
VSC7429XJG-01	Second generation 672-pin 27 x 27 mm thermally enhanced BGA lead-free second-level interconnect
VSC7429XJG	First generation 672-pin 27 x 27 mm thermally enhanced BGA lead-free second-level interconnect

Add to Cart	Category	Title	Access	Revision	Posted	Type	Size
	Product Brief	VSC6810SDK Product Brief		1.0	12/05/2011		1 MB
	Product Brief	VSC7429 Product Brief		1.0	06/14/2010		718 kB
	Product Brief	WebStaX and SMBStaX Product Brief		1.2	08/05/2011		195 kB
	Datasheet	VSC7428 and VSC7429 Caracal Datasheet		4.0	10/28/2011		5 MB
	Datasheet	VSC7428-01 and VSC7429-01 Caracal Datasheet		4.0	08/16/2012		8 MB

Datasheet	VSC7428-02 and VSC7429-02 Caracal Datasheet		4.0	10/12/2012		8 MB
Application Note	Magnetics Guide		2.0	06/27/2012		626 kB
Application Note	Distributed Transparent Clock over Microwave		1.0	11/01/2012		193 kB
Application Note	IEEE1588 Configuration Guide		1.0	04/04/2011		473 kB
Application Note	IEEE1588v2 and SyncE - Applications and Operation Using Vitesse's Synchronization Solution		3.0	11/01/2012		2 MB
Application Note	PTP Clock Implementation Using the Caracal Switch		1.0	10/12/2011		223 kB
Application Note	Service OAM		1.0	11/18/2010		550 kB
Application Note	Using the SparX-III Serial GPIO/LED Controller		1.0	08/02/2012		2 MB
Application Note	Vitesse Linux BSP		1.1	12/14/2010		155 kB
Reference Design	Reference Design 24 Cu ports + 2 SFP Managed Switch and PHY		2.3	10/01/2012		61 MB
Software	Embedded Configurable Operating System (eCos-3.0) Vitesse repository and arm-elf tools		3.0	06/07/2012		66 MB
Software	Vitesse Linux BSP		2.2	12/13/2010		8 MB
Software	API Release Notes		4.30	05/07/2013		26 kB
Software	eCos Operating System		1.0	06/20/2013		21 MB
Software	WebStaX, SMBStaX, and CEServices Release Notes		3.30	05/07/2013		128 kB
Software	WebStaX-III, SMBStaX-III, and CEServices Release Note		2.80f	11/27/2012		78 kB
White Paper	Precise Timing for Base Stations in the Evolution to LTE		00-04	02/19/2013		4 MB
White Paper	The Vitesse Service Aware Architecture (ViSAA) for Carrier Ethernet Switches		1.0	05/30/2013		2 MB
Reports	VSC7424XJG, VSC7425XJG, VSC7426XJG, VSC7427XJG, VSC7428XJG, VSC7429XJG and VSC8512XJG Material Composition Declaration - (A109160 Substrate)		2.0	10/10/2011		22 kB
Reports	VSC7424XJG-01, VSC7425XJG-01, VSC7426XJG-01, VSC7427XJG-01, VSC7428XJG-01, VSC7429XJG-01, VSC8512XJG-01 Material Composition Declaration - Au Wire		1.0	04/13/2012		22 kB

Reports	VSC7424XJG-02, VSC7425XJG-02, VSC7426XJG-02, VSC7427XJG-02, VSC7428XJG-02, VSC7429XJG-02, VSC8512XJG-02 and VSC8512XJG-03 Material Composition Declaration - Cu Wire		3.0	01/31/2013		22 kB
Reports	First Level Product Qualification Report for VSC7429XJG-02 - Cu Wire		3.0	06/19/2013		88 kB



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Key Features

- Integrated Cu PHYs
- IEEE 1588 and Synchronous Ethernet network timing
- Supports IEEE802.3az and green energy efficiency modes with ActiPHY™ and PerfectReach™

Applications

- Ethernet Access Devices (EAD): CPE, NTE, and MTU
- Mobile backhaul
- Carrier Ethernet switches

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