Marvell Prestera 98DX4211
Next Generation Enterprise and SMB Access

PRODUCT OVERVIEW

The Marvell® Prestera® DX family of packet processors enables secure, high-density and intelligent 10GbE/2.5GbE/1GbE switching solutions at the access/edge and aggregation layers of Campus, Industrial, Small Medium Business (SMB) and Service Provider networks.

The Marvell Prestera 98DX4211/10 are eighth generation packet processors of the Prestera DX family. The 98DX4211 and 98DX4210 are optimized for enterprise edge and industrial Ethernet applications. With support for port speeds of 1GbE/2.5GbE/10GbE/40GbE, these devices are ideally suited to build the next-generation access infrastructure. Additional support for virtual bridging and routing and congestion management features allows the devices to coexist in legacy and newer Software Defined Networking (SDN)/cloud-managed network deployments. Integrated dual-core ARM CPUs enable host offload or allow a complete networking stack for SMB, Small Medium Enterprise (SME) and enterprise environments.
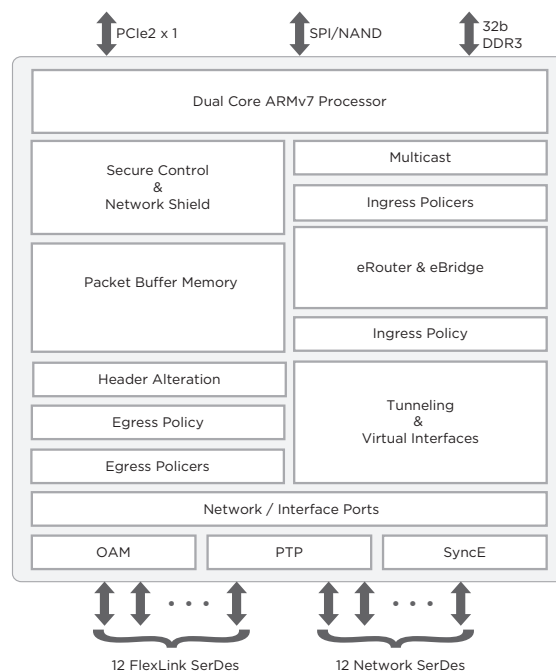

Fig 1. 98DX4211 System Block Diagram

SPECIAL FEATURES	BENEFITS
• Integrated FlexLink SerDes	• Support for 1GbE/2.5GbE/10GbE/40GbE port speeds • Flexible configuration for next generation wired & wireless converged access and stacking solutions
• Port Extender capability	• IEEE 802.1BR -compliant bridge port extension capability • Ability to extend and expand a port on a centralized managed switch • Standards-based solution enables flexibility in building stackable platforms

• eBridge™ Technology	• Highly flexible mechanisms for virtualization of physical resources
	  - Port, VLAN, service and application level virtualization
	  - Suitable for a standard, hybrid or software-defined networking environments with capabilities beyond OpenFlow 1.4

• Integrated processor	• Dual-core ARMv7 running up to 800 MHz • Enables native host processing for standard switching and routing applications • Additional core enables value added services (PTP servo, OAM, soft DPI etc)

APPLICATIONS

The Prestera 98DXDX4211 is a 168 Gbps packet processor that enables performance and cost optimized solutions for 1GbE, 2.5GbE and 10GbE enabled platforms in the Small Medium Enterprise and Campus environments. Service, port and system level virtualization capabilities driven by Marvell's eBridge™ architecture enable designs suited for legacy networks as well as cloud managed SDN deployments for application. Marvell's Alaska PHYs enable a wide range of Copper and Fiber solutions including high density 1 GbE/ 2.5GbE ports for network access via Ethernet or 802.11AC wave 2 enabled access points, as well as 10G Fiber or 10GBaseT Copper.

To shorten system manufacturers design cycles and accelerate time-to-market, Marvell provides complete development platforms and reference designs with schematics, layout files and related documentation.
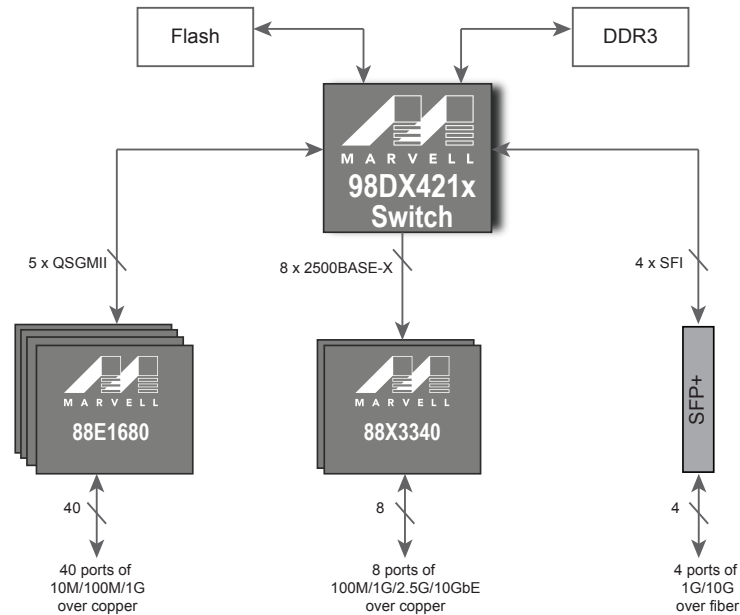
Fig 2. Example of a converged access switching solution with 1GbE, 2.5GbE and 10 GbE ports

THE MARVELL ADVANTAGE: Marvell chipsets come with complete reference designs which include board layout designs, software, manufacturing diagnostic tools, documentation, and other items to assist customers with product evaluation and production. Marvell's worldwide field application engineers collaborate closely with end customers to develop and deliver new leading-edge products for quick time-to-market. Marvell utilizes world-leading semiconductor foundry and packaging services to reliably deliver high-volume and low-cost total solutions.

ABOUT MARVELL: Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions enabling the digital connected lifestyle. From mobile communications to storage, cloud infrastructure, Internet of Things (IoT), digital entertainment and in-home content delivery, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, private and work lives, Marvell is committed to enhancing the human experience. As used herein, the term "Marvell" refers to Marvell Technology Group Ltd. and its subsidiaries.

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