

MARVELL® Link Street®-88E6393X Switch

11-port SOHO switch with Eight 10/100/1000Mbps PHYs and 3 XFI

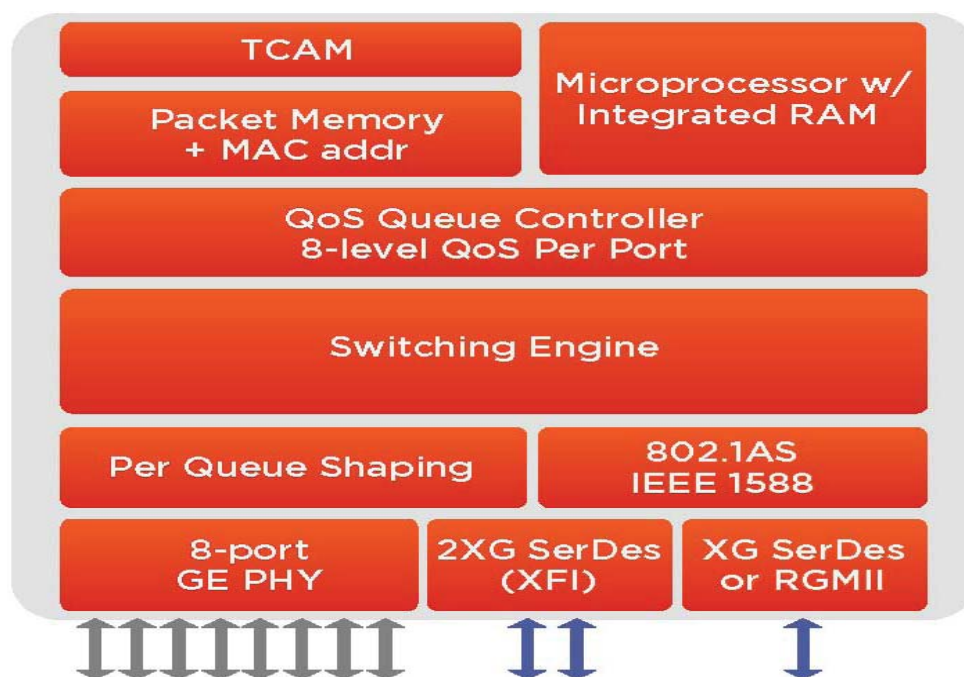
PRODUCT OVERVIEW

The Marvell® Link Street®-88E6393X device is a single-chip, 11-Port Ethernet Switch with eight integrated 10/100/1000Mbps Ethernet transceivers and 3 high speed SerDes interfaces supporting USXGMII, 10GBASE-R, 5GBASE-R, 2500BASE-X, 1000BASE-X, SGMII. The device also includes an integrated 200MHz microprocessor to enable smart and lite management protocols without the need of an external CPU. The 88E6393X supports L3 Routing function, matching the requirement from different network topology.

The 88E6393X provides advanced QoS features with 8 egress queues. The high performance switch fabric provides line rate switching on all ports simultaneously while providing advanced switch functionality. The device includes TCAM to enable flexible switch policing, including Access Control Lists (ACLs) and Policy Control Lists (PCLs). The 88E6393X also supports the latest IEEE 802.1 Time Sensitive Networking (TSN) standards. These new standards overcome the latency and bandwidth limitations of Ethernet to allow for the efficient transmission of real-time content for home, commercial, and industrial applications.

The 88E6393X also supports IEEE 802.1BR port extender protocol, which enables dramatic reduction of the complexity and cost of the Ethernet network.

BLOCK DIAGRAM



KEY FEATURES AND BENEFITS

FEATURES	BENEFITS
<ul style="list-style-type: none"> • 11-port Ethernet Switch - Eight 10/100/1000Mbps PHYs; 2 XG SerDes; 1 XG SerDes or RGMII - 4K 802.1Q VLANs - 16K MAC addresses - Quality of Service (QoS) support with 8 traffic classes - 10KByte Jumbo Frames per port ingress rate limiting and broadcast storm prevention - 802.1D/s/w Spanning Tree Protocols - IPv4 IGMP and IPv6 MLD snooping - 802.1x MAC Authentication 	<ul style="list-style-type: none"> • Provides a complete Gigabit Ethernet switching solution for SOHO and SMB 8 port switches and routers. • The 10Gbps interfaces provide non-blocking uplink to cascade to higher port count 16 and 24 port switches
Integrated Microprocessor	<ul style="list-style-type: none"> • Enable web smart or lightly managed switches
256 Entry TCAM for Deep Packet Inspection	<ul style="list-style-type: none"> • Enables intelligent switching and policing of packets by looking beyond Layer 2 packet information
L3 Routing	<ul style="list-style-type: none"> • Enables L3 Routing function
IEEE802.1BR Port Extender	<ul style="list-style-type: none"> • Enables new networking structure
Cut-through	<ul style="list-style-type: none"> • Reduces packet latency
IEEE 1588v2	<ul style="list-style-type: none"> • Enables high accuracy time synchronization
DoS Prevention	<ul style="list-style-type: none"> • Offers network security function by preventing DoS attack
Time Sensitive Networking (TSN) Standards: 802.1AS, 802.1Qat, 802.1Qav and 802.1Qbv	<ul style="list-style-type: none"> • Provides the latency, bandwidth and Quality of Service guarantees required to deliver today's multimedia entertainment and information over the Ethernet network.
Package	<ul style="list-style-type: none"> • 15mmx15mm TFBGA

TARGET APPLICATIONS

- SMB Switch with L3 Routing support
- Industrial Switch
- 802.1BR Port Extender
- Gateway - Port Aggregation for SoC



ABOUT MARVELL: Marvell first revolutionized the digital storage industry by moving information at speeds never thought possible. Today, that same breakthrough innovation remains at the heart of the company's storage, network infrastructure, and wireless connectivity solutions. With leading intellectual property and deep system-level knowledge, Marvell's semiconductor solutions continue to transform the enterprise, cloud, automotive, industrial, and consumer markets. For more information, visit www.marvell.com.