



PRODUCT OVERVIEW

The Marvell® Link Street™ family of low power Fast Ethernet (FE) switches provides industry-leading functionality and price-performance ratio for the cost-sensitive Small Office/Home Office (SOHO) gateway/switching market and enterprise desktop switching market. The Link Street 88E6060 device is a 6-port switch integrating a high-performance switching fabric, a high-speed address lookup engine, five 10/100 Ethernet PHY ports, one MII port for CPU connection, six independent Media Access Controllers (MACs), and one-half Mb frame buffer memory. The 88E6060 device is an ideal product for cost-sensitive low port count switch systems and wireless and wireline firewall routers.

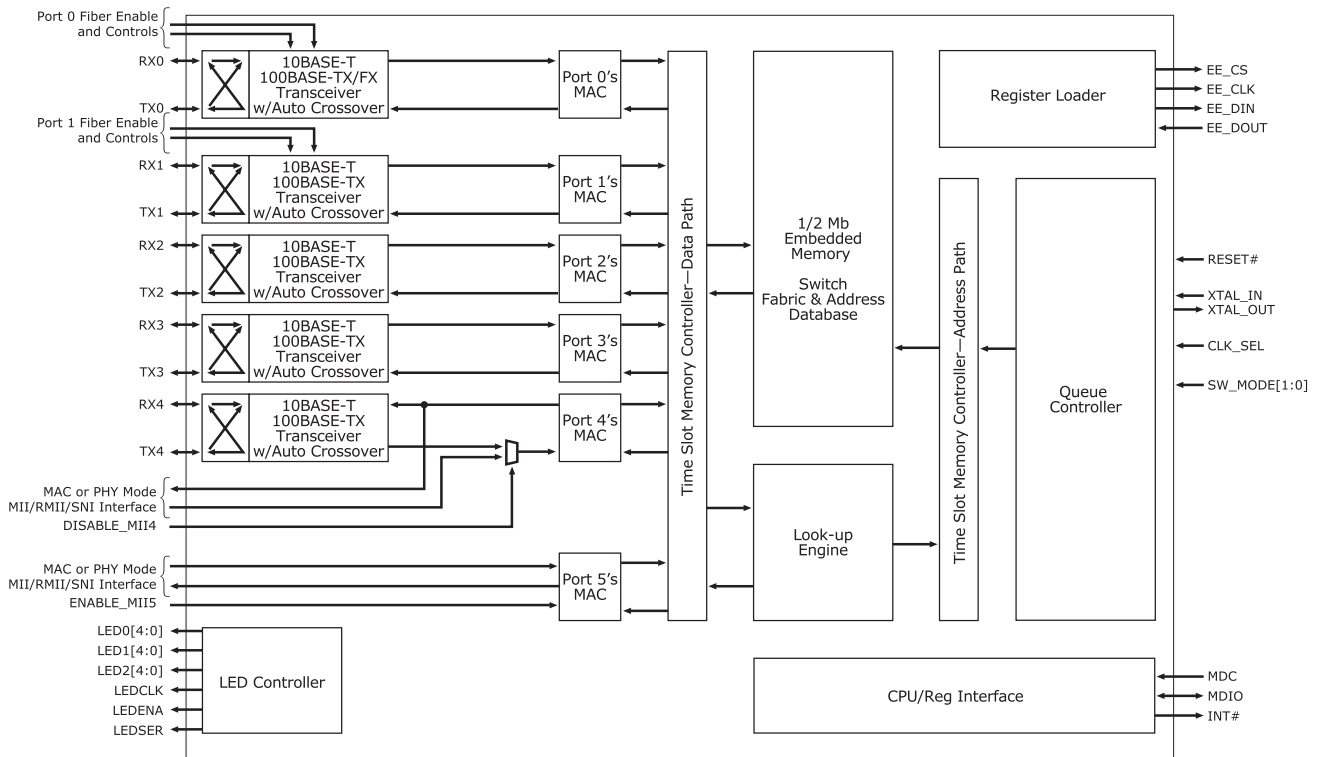


Fig 1. Link Street 88E6060 SOHO Switch Internal Block Diagram

FEATURES

- Single-chip integration of a 6-port FE switch
- Five integrated 10/100 Ethernet PHY ports and one MII port
 - Two of the PHY ports can be configured as copper or fiber
 - Multi-mode MII interfaces
- Virtual Cable Tester™ (VCT) technology
- Automatic MDI/MDIX crossover for 100BASE-TX and 10BASE-T ports

BENEFITS

- Provides low cost solution for SOHO wireless gateway routers and desktop switches
 - Support both copper and fiber connections
 - Provide design flexibility for connections to CPUs or external PHYs
- Provides advanced cable integrity diagnostic that helps customers determine location of cable opens, shorts and impedance mismatch
- Reduces costly phone calls to equipment manufacturers' support centers
- Simplifies networking installation
- Reduces costly support phone calls





FEATURES

- High-speed switch fabric
 - Integrated 512 Kb on-chip memory
 - High-performance look-up engine with support for up to 1,024 MAC address entries with automatic learning and aging
- Port-based VLAN supported in any combination
 - Egress tagging/untagging selectable per port
- CMOS low power dissipation PAVE = Less than 0.7W

BENEFITS

- Provides true non-blocking switching performance
 - Integrated memory reduces cost and enhances performance
 - Supports a large number of Ethernet nodes
- Provides Layer 2 firewall protection to filter unauthorized access to network traffic
 - Allows suppression or addition of group membership to provide flexible management by IT managers
- Eliminates expensive heat sinks or fans and permits the use of low cost and small enclosures

APPLICATIONS

The Link Street family of products provides industry-leading functionality for low cost integrated switches. The 88E6060 device cost-optimized integration, low power, and extra port saves BOM costs, and supports many applications with few additional active components in a small footprint. The flexibility of the 88E6060 switch comes from its configuration options and integration. The device supports an optional EEPROM to override any desired default settings. The 88E6060 device contains PHYs, LED drivers, voltage regulator logic, switch logic, and memory. The only active components required to implement a complete 88E6060 10/100 Ethernet switch are a 25 MHz crystal clock source and a low cost PNP transistors used by the 88E6060 device's voltage regulator to generate 1.5V and 2.5V from 3.3V.

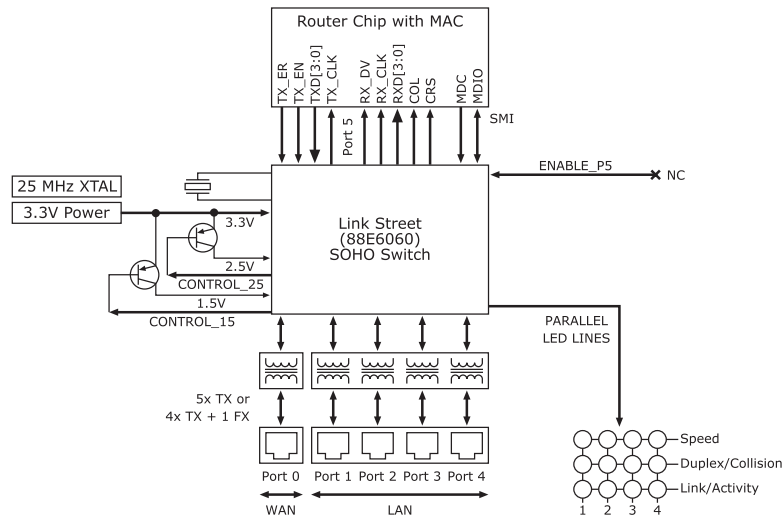


Fig 2. Firewall Router Application

THE MARVELL ADVANTAGE: The Marvell Link Street 88E6060 FE switch comes with a complete set of hardware and software development tools to assist network hardware engineers with product evaluation. Marvell's worldwide field applications engineers collaborate closely with network equipment vendors to develop and deliver new competitive products to market on time. Marvell utilizes recognized world-leading semiconductor foundry and packaging services to reliably deliver high-volume and low cost total solutions.

For more information, visit our website at www.marvell.com.



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