BROADCOM®

Connecting
e v e r y t h i n g ®

BCM5324M
PRODUCT Brief

SINGLE-CHIP L2+ MANAGED SWITCH WITH 24 10/100 PORTS + 2 GbE PORTS

FEATURES

- Seventh-generation ROBO L2+ 24FE + 2GE switch with two GMII/RGMII/TBI interfaces

- Twenty-four fully integrated 10/100 PHYs with support of Advanced Cable Diagnostics in the Broadcom PHY technology

- QoS packet classification supports four priority queues

- Port-based VLAN and 802.1Q VLAN with 4k entries

- Supports traffic aggregation via double tagging

- Spanning Tree (IEEE 802.1D/1s/1w)

- MAC-based Trunking with automatic link failover

- Port mirroring

- IGMP snooping Layer2/3

- Over 70 MIB counters for per port management statistics

- Up to 24 Static Secure MAC addresses per port

- Programmable Broadcast, Multicast, and Unknown Unicast storm control

- Per port Bandwidth/Rate Control

- 8K MAC addresses with automatic learning and aging

- Protected Port

- Multicast Address table for 256 entries

- 25th FE port via MII or Reversed MII mode for management

- MDC/MDIO and SPI interfaces

- Internal oscillator simplifies design and reduces cost

- JTAG

- Embedded 2.5V and 1.2V regulator, typical power consumption: 3.5W

- 400-pin PBGA package

SUMMARY OF BENEFITS

- The BCM5324M includes:
    - Twenty-four 10/100 transceivers for TX/FX
    - Twenty-four media access controllers
    - Two Gigabit media access controllers
    - 3 Mb total of packet buffer and control memory
    - Non-blocking switch fabric supports up to 24 FE+2 GE ports

- Advanced Cable Diagnostics minimize the need for expensive cable troubleshooting equipment.

- Enables a new generation of lower cost FE switches with the highest integration of enhanced L2+ features and maximum connectivity.

- Optimized for WebSmart managed switch design.

- 802.1Q VLAN allows segmentation of network into smaller broadcast domains to preserve bandwidth and increase network security.

- Four flexible Class of Service (CoS) queues per port assures the lowest latency to high-priority traffic. This enables the switch to support a wide variety of delay sensitive video and audio multicast applications.

- IEEE 802.3ad link aggregation increases effective bandwidth and provides redundancy of a link.

- IEEE 802.1X Extensive Authentication Protocol over LAN (EAPOL) plus MAC address locking enhances network port security.

- Storm and Bandwidth/Rate Control provide better traffic profile management.

- Access to all internal registers through SPI or MDC/MDIO interfaces.

- Hardware support for implementing SNMP and RMON.

- Low-power consumption and small package allow simple PCB design.