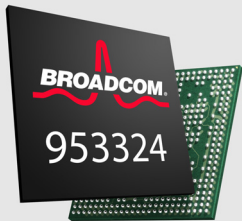


# Broadcom BCM953324 Reference Design



## STRATAXGS® 24-PORT ENERGY EFFICIENT ETHERNET™ GBE REFERENCE PLATFORM



### Highlights

- Line-switching performance on all 24 GbE ports
- 10/100/1000 Mbps management port interface for network booting
- BCM953324RM and BCM953324RM2L—8 MB flash/32 MB SDRAM for software requirement
- Serial port
- Fifth-generation Broadcom API source code and device driver
- Access to complete switch registers and an advanced debug environment provided by the Broadcom Command Line Interface (CLI) on the BCM53324S reference design
- Cost-optimized design to enable faster time-to-market

### Overview

The BCM953324R, BCM953324RM, BCM953324R2L, and BCM953324RM2L are complete reference designs with 24-port GbE copper. The system is based on the BCM53324U/BCM53324S devices, a powerful, highly integrated members of the scalable StrataXGS® III product family. These next-generation Energy Efficient Ethernet™ (EEE) reference designs are based on IEEE 802.3az-complaint standard.

There are four versions of the reference designs:

- BCM953324R unmanaged version on 4L PCB populated with BCM53324U
- BCM953324R2L unmanaged version on 2L PCB populated with BCM53324U
- BCM953324RM smart version on 4L PCB populated with BCM53324S
- BCM953324RM2L smart version on 2L PCB populated with BCM53324S

All the 24-port GbE reference designs share the same footprint and are specifically designed to enable faster time-to-market.

### Architectural Features

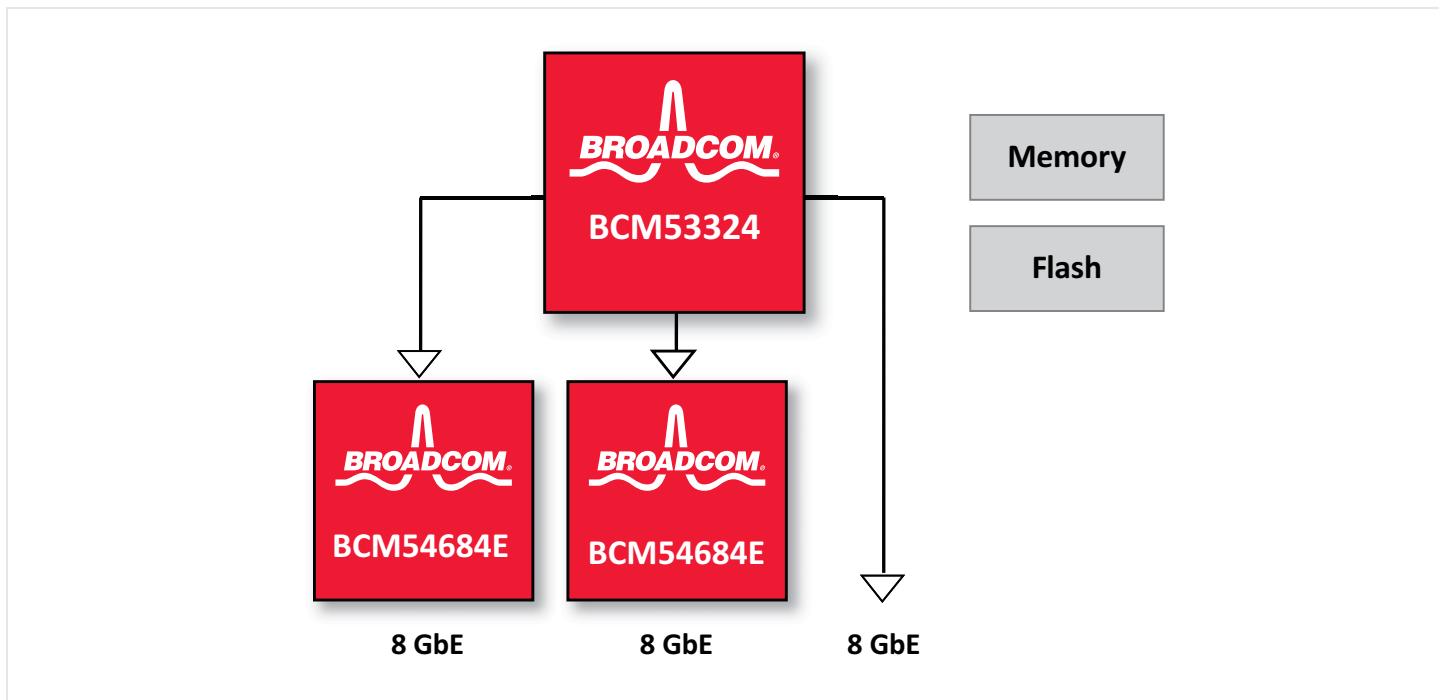
- Main PCB with BCM53324U/BCM53324S switch (where the BCM53324S has an integrated 32-bit MIPS CPU)
- Both BCM53324U and BCM53324S come with an integrated 8 GE PHY
- Two BCM54684E QSGMII PHYs
- VxWorks® embedded real-time operating system (run-time license)
- Latest version of Broadcom's API driver
- SmartPATH® software

#### BCM953324

	BCM953324
Service Provider	●
OTN/PTN	◐
Data Centers	●
Enterprise	●

◐ Supported ● Best Choice





BCM953324 Reference Design

## Developing Your Switch

Each of the BCM953324R, BCM953324RM, BCM953324R2L, and BCM953324RM2L designs is a highly integrated solution for a 24-port 10/100/1000 Mbps copper multilayer switch. The BCM953324 provides a quality platform for the development of advanced software for switching applications. The BCM953324 enables the accelerated development of the following types of switches:

- Layer 2 managed switch with support for spanning tree
- Layer 2 intelligent switch with IEEE 802.1p/Q support
- IPv4/IPv6 support

Each of the BCM953324R, BCM953324RM, BCM953324R2L, BCM953324RM2L designs are equipped with all software and hardware necessary to simulate a typical systems environment. The reference design is preloaded with a VxWorks real-time operating system.

## Documentation and Software

Documentation for the BCM953324 device and SDK software API is available online through docSAFE:

- Complete BCM953324R, BCM953324RM, BCM953324R2L, BCM953324RM2L design files, including ViewLogic schematic data-

base, Allegro® brd file, Gerber files, and bill of materials (BOM)

- SDK software API source code and documentation
- BCM953324 data sheet, programmers reference guide, and theory of operations

## Ordering Information

Order Part Number: BCM953324R, BCM953324RM, BCM953324R2L, BCM953324RM2L.

For additional ordering information, contact your local sales representative.

## About Broadcom

Broadcom Corporation is a major technology innovator and global leader in semiconductors for wired and wireless communications. Broadcom products enable the delivery of voice, video, data and multimedia to and throughout the home, the office and the mobile environment. We provide the industry's broadest portfolio of state-of-the-art system-on-a-chip and software solutions to manufacturers of computing and networking equipment, digital entertainment and broadband access products, and mobile devices.

These solutions support our core mission: Connecting everything®.

Broadcom, one of the world's largest fabless communications semiconductor companies, with 2009 revenue of \$4.49 billion, holds more than 4,300 U.S. and 1,800 foreign patents, and has more than 7,900 additional pending patent applications, and one of the broadest intellectual property portfolios addressing both wired and wireless transmission of voice, video, data and multimedia.

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