

UNMANAGED AND MANAGED REFERENCE DESIGNS

FEATURES

- **BCM953125R**
 - Reference platform for unmanaged Gigabit Ethernet (GbE) switch
 - Discrete magnetics for low-cost designs
 - EEPROM or serial flash for configuration—jumbo frame preenabled
 - Small form factor for low-cost design
- **BCM953125RM**
 - Reference platform targeted for residential/SOHO gateway
 - L2-managed
 - 128 Mbit serial flash
 - Broadcom software—RSTP, IGMP/MLD snooping, IEEE 802.1x, SNMP, 802.1p, 802.1Q, access control list (ACL), and more
 - Latest SDK/API
 - WAN port RJ-45 connection

SUMMARY OF BENEFITS

- **First Broadcom IEEE 802.3az (Energy Efficient Ethernet™) compliant switch**
- **Third-generation Broadcom switch with BroadSync™ HD functionality**
 - Guaranteed latency
 - Guaranteed BW
 - Synchronous timing
- **Low-cost components for the most cost-effective designs: For unmanaged switches, a two-layer board and EEPROM enable low-cost configuration.**
- **Line rate switching performance for all ports, including jumbo frames**
- **Access to complete switch registers and an advanced debug environment provided by the Broadcom command line interface (CLI)**
- **SDK supports VxWorks® (shipped with the board) and Linux®**
- **No additional CPU daughtercard required; single and complete reference board for residential gateway designs.**
- **WAN port enables generic router design with one CPU and multiple WAN interface types.**

BCM953125R and BCM953125RM Reference Boards

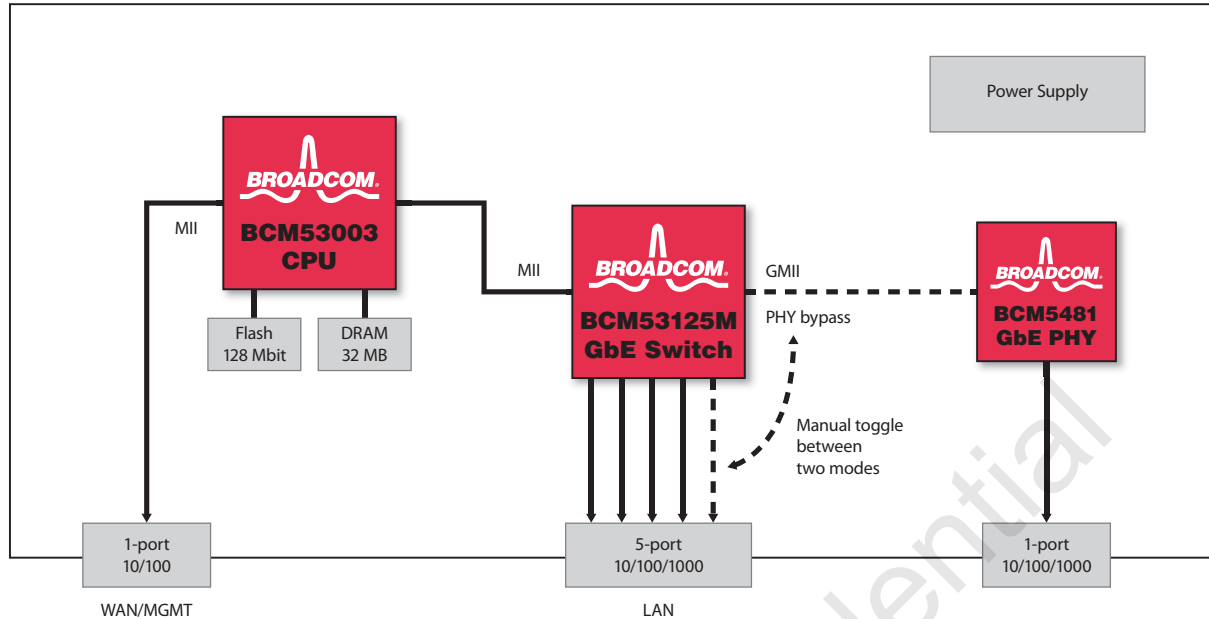


BCM953125R



BCM953125RM

OVERVIEW



BCM953125RM Reference Board Block Diagram

Developing Your Switch

The BCM953125R/BCM953125RM are the most integrated and lowest cost solutions for five-port GbE unmanaged or managed residential/SOHO gateway switches. In addition, the reference designs provide high-quality and industry-proven software for residential/SOHO gateway applications and enable accelerated development of the following types of switches:

- Small form factor unmanaged designs
- Residential/SOHO gateway switches with support for rapid spanning tree, IGMP/MLD snooping, 802.1x, 802.1p/Q, SNMP, and more

Documentation and Software

Documentation for the BCM53125 device, reference design, and SDK is available in docSAFE on the Broadcom Customer Support portal.

The available documents include:

- Schematics, Allegro® files, Gerber layout files, and EMI test reports
- Reference design user manual
- SDK software API source code and documentation
- BCM53125 data sheet and programmer's reference guide
- Application notes, including BroadSync HD introduction and usage

Ordering Information

- BCM953125R—5-port GbE reference design for unmanaged switches
- BCM953125RM—5-port GbE reference design for residential/SOHO gateways with BCM53003 CPU and WAN port.

For additional ordering information for the BCM953125R/BCM953125RM reference designs, contact your local sales representative.

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