

UNMANAGED AND MANAGED REFERENCE DESIGNS

FEATURES

- **BCM953115R5G**
 - Unmanaged Gigabit Ethernet (GbE) switches
 - LoopDTech™ and CableChecker™ – LoopDTech on/off switch and buzzer warning sound
 - Discrete magnetics for low cost designs
 - EEPROM for configuration—jumbo frame and LoopDTech pre-enabled
 - Small form factor for low cost design
- **BCM953115R5GM switch for residential/SOHO gateway**
 - Reference platform targeted to the residential/SOHO gateways
 - L2-managed
 - Onboard BCM5836 MIPS® CPU, 64-MB SDRAM, 16-MB Flash
 - Broadcom® software—RSTP, IGMP/MLD snooping, 802.1x, SNMP, 802.1p, 802.1Q, access control list (ACL), and more
 - Latest SDK/API
 - WAN port RJ-45 connection

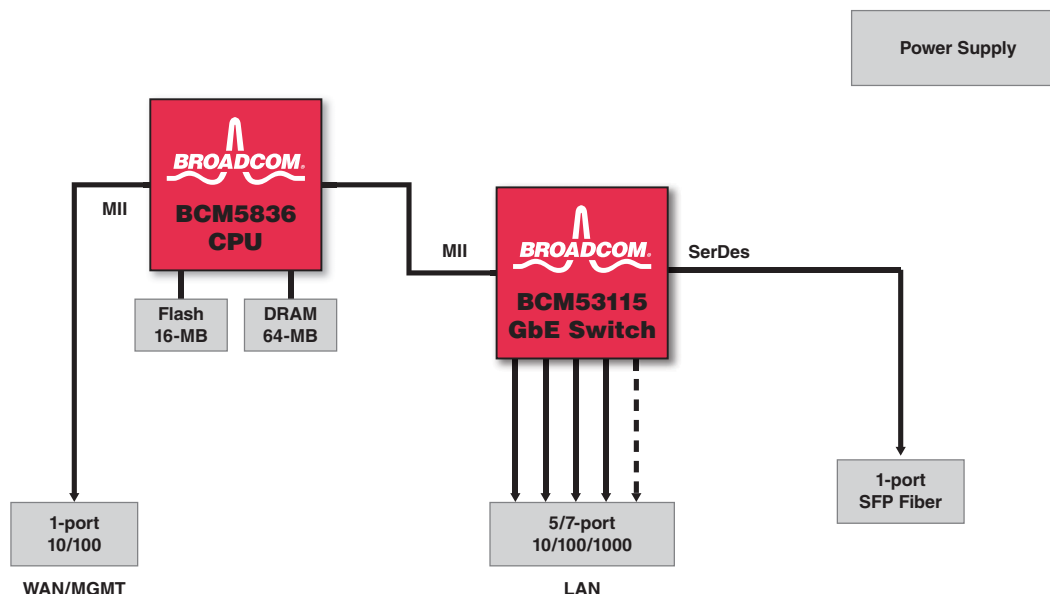
SUMMARY OF BENEFITS

- Industry-first 7-port GbE switch with TCAM-based ACL for packet classification and filtering
- Second-generation Broadcom switch with Ethernet AV function
 - Guaranteed latency
 - Guaranteed BW
 - Synchronous timing
- Lowest power consumption in the industry
- Two-layer board for unmanaged; EEPROM for low cost configuration (unmanaged); low cost components for the most cost-effective designs
- Line rate port switching performance, including jumbo frames
- Sixth-generation Broadcom API source code and device driver
- Access to complete switch registers and an advanced debug environment provided by the Broadcom CLI
- SDK supports VxWorks® (shipped with board) and Linux®
- No additional CPU daughtercard required; single and complete reference board for residential gateway designs
- Dual IMP ports enable generic router design with one CPU and multiple WAN interface types

BCM953115R5G and BCM953115R5GM (Front and Rear Views)



OVERVIEW



BCM953115R5GM Reference Board Block Diagram

Developing Your Switch

The BCM953115R5GM is the most integrated and lowest cost solution for 7-GbE port unmanaged residential/SOHO gateway switches. In addition, the reference designs provide high-quality and industry-proven software for residential/SOHO gateway applications and enables the 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 BCM53115 device, reference design, and SDK 5.5.0 are available online through docSAFE.

The documents available include:

- Schematics, Allegro®, Gerber layout, EMI test reports
- Reference design user manual
- SDK software API source code and documentation
- BCM53115 data sheet, programmer's reference guide
- Application notes, including Ethernet AV introduction and usage

Ordering Information

- BCM953115R5G—5-port GbE, unmanaged
- BCM953115R5GM—7-port GbE with BCM5836 CPU and WAN port, residential/SOHO gateway

For additional ordering information for the BCM953115R5G_BCM953115R5GM reference designs, contact your local sales representative.

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