BCM53125

7-Port Integrated Gigabit Energy-Efficient Ethernet Switch

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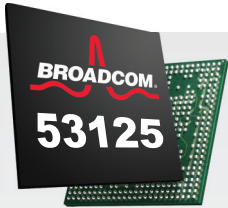
BCM53125

✓	Multilayer Switch
✓	Low Power
✓	EEE

FEATURES

- First Broadcom® IEEE 802.3az Energy Efficient Ethernet (EEE)-compliant switch.
- Integrated on-chip µC to manage low-power modes automatically.
- Power-saving green technology.
- Supports RGMII, MII, RvMII, TMII, and GMII on uplink ports.

BENEFITS

- Saves more than 70 percent power during EEE mode compared to non-EEE mode.
- Individual ports can automatically detect when short cable lengths are used to scale power appropriately.
- Unused ports can be intelligently powered down to conserve power.
- Very low power consumed in active mode (with full traffic on all ports).
- Two additional Gigabit ports for glueless connection to CPU, WLAN, cable, or DSL chipsets.
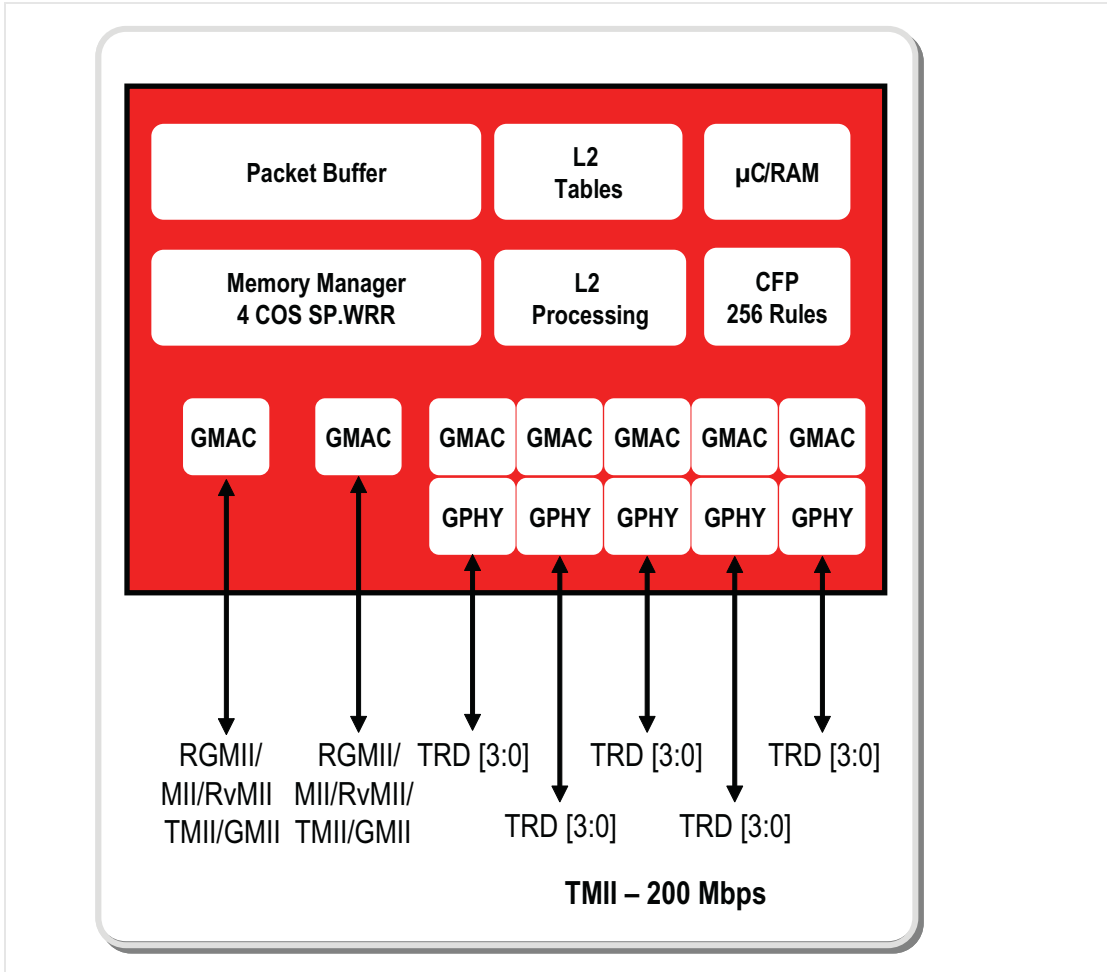
BCM53125 Block Diagram

OVERVIEW

The BCM53125 is Broadcom's first integrated multilayer switch to support the IEEE 802.3az specification for Energy Efficient Ethernet (EEE).

The BCM53125 is the optimal solution for small and medium business designs that have challenging low-power requirements.

Building upon industry-leading 65 nm RoboSwitch™ architecture, the BCM53125 can lower the power consumption by an additional 10 percent when compared to the previous-generation device.

The BCM53125 solidifies Broadcom's leadership in Ethernet switching technology by delivering an optimized solution for the SMB desktop switch, wireless router, and gateway markets.

The BCM53125 can interconnect with other devices for scalable, high-performance systems through multiple interfaces including RGMII, GMII, MII, and Turbo MII.

Requirements such as video and Internet Protocol (IP) phone services are driving the need for QoS and adherence to industry standards.

The BCM53125 supports four selectable QoS per port, SP and WRR and any combination of SP and WRR scheduling, port, MAC, IEEE 802.1P, and IPv4/IPv6 DSCP-based QoS. The BCM53125 also supports IEEE 802.qat and IEEE 802.1aq.

The BCM53125 delivers the most comprehensive technologies required by top tier service providers for gateway applications.

Protocols such as IEEE 802.1Q-based VLAN with 4K entries, port-based VLAN, VLAN double tagging (Q-in-Q), and VLAN translation are fully supported.

ORDERING INFORMATION

	Part Number
BCM53125M (commercial)	BCM53125MKMML(G)
BCM53125M (industrial)	BCM53125MIMML(G)
BCM53125S (commercial)	BCM53125SKMML(G)
BCM53125U (commercial)	BCM53125UKMML(G)

BCM53125: PRODUCT FAMILY

	BCM53125M	BCM53125S	BCM53125U
Number of Cu Ports supported (5 GPHYs)	5	5	5
Number of addition IMP ports supported	2	2	0
Package (Commercial temp)	12x12 (186-pin)	12x12 (186-pin)	12x12 (186-pin)
Classifier support	Yes	Not supported	Not supported
Audio Video Bridging (AVB)	Yes	Not supported	Not supported
ROHS support	Yes	Yes	Yes
Cable Diagnostics tool support	Yes	Yes	Yes
LoopDTech™ tool support	Yes	Yes	Yes
Target applications and segments	CPE/Gateway	WLAN router and switch	Unmanaged switch

For more information, visit:
www.broadcom.com