

10 GIGABIT ETHERNET/HIGIG™ MULTILAYER SWITCH

BCM5673 FEATURES

- Single 10-Gbps IEEE802.3ae compliant Ethernet port
- Single 10-Gbps HiGig Uplink/Expansion port used for stacking applications
- Integrated 512 KB packet buffer memory on-chip
- Integrated Layer 2/Layer 3 tables on-chip
- Supports Line-rate switching for all packet sizes, including jumbo frames (64 - 9216 bytes)
- Supports wire-speed Layer 2 and Layer 3 switching
- Supports eight Classes of Service (CoS)
- Supports advanced packet flow control:
 - Head of Line Blocking prevention
 - Full-duplex flow control (802.3x compatible)
- ContentAware™ network processing per port:
 - Line rate deep packet classification
 - Supports IEEE802.1p, TOS/DiffServ, rate limiting, policing, priority tagging, and re-mapping
- Provides hardware support for IP multicasting and IP multicast replication
- Built-in Double Tagging Engine with loopback feature
- Scalable up to 32 StrataXGS™ modules
- Supports Port Trunking and mirroring across the stack
- Low power ~4 W

SUMMARY OF BENEFITS

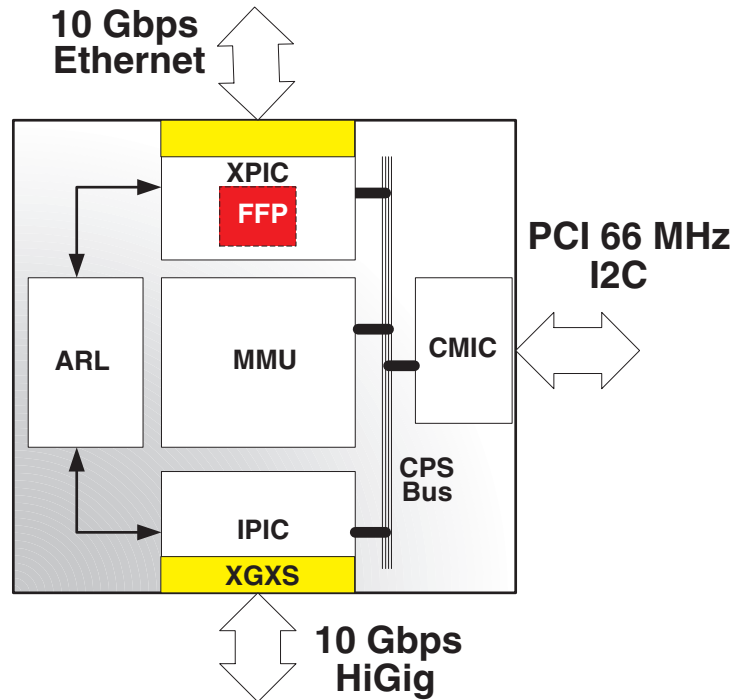
- Enables system vendors to build scalable high-performance switches with 10 Gigabit Ethernet support
- Built-in Double Tagging Engine enables the StrataXGS family of switches to interface with the service provider VLAN
- Provides hardware support for a number of multicast applications, such as video and audio conferencing, web training
- Multiple CoSs enable the switch to prioritize latency-sensitive applications, such as VoIP and video applications
- Built-in 10 Gigabit Ethernet/XAUI SerDes in addition to integrated data and address memory reduces overall system cost and design complexity
- Broadcom Switch API compatibility enables software re-use and faster time to market
- Small package and low-power enables cost effective and high-performance system design

TARGET APPLICATIONS

High performance 10 Gigabit Ethernet Multi-layer switching applications targeting the following types of systems:

- Standalone systems
- Stackable systems
- Modular chassis systems
- High-end server blades

BCM5673 OVERVIEW



The BCM5673 10 Gigabit Ethernet switch is a scalable, multi-layer switch-on-chip member of the StrataXGS family. The BCM5673 is a dual port switch, which supports a 10 Gigabit Ethernet (IEEE802.3ae) port and a HiGig™ uplink port. The 10 Gigabit Ethernet port can be used to interface to the XENPAK module via the XAUI interface.

The HiGig uplink expansion port supports explicit priority, port trunking, and mirroring functions across the stack. The HiGig port can be used to interconnect up to 32 switching devices, which enable high-port density switching applications.

The BCM5673 supports VLAN double tagging. The built-in Double Tagging Engine provides double tagging support to the entire StrataXGS family of products. The switch can also be used in loopback mode enabling double tagging support for the Gigabit Ethernet ports on the BCM5690.

The built-in Fast Filter Processor (FFP) provides ContentAware network processing. The FFP supports functions such as TOS/DiffServ mapping, rate limiting, policing, priority tagging, and metering functions. The enhanced packet classification feature of the FFP enables cutting edge applications, such as VoIP and firewall.

The BCM5673 provides hardware support for IP multicasting as well as IP multicast replication. This enables a number of multicast applications, such as webtraining and audio/video conferencing.

The BCM5673 supports advanced packet flow control, such as head-of-line blocking prevention and IEEE802.3x compatible full-duplex control.

For additional information on the BCM5673, please contact your local sales representative.

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