BROADCOM®

Connecting **e v e r y t h i n g** ®

BCM5695
PRODUCT Brief

MULTILAYER 12-PORT GIGABIT ETHERNET STACKABLE SWITCH
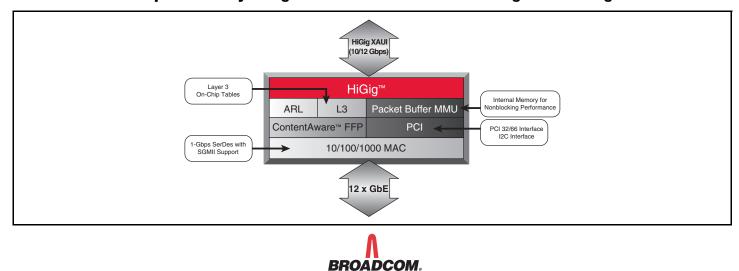
FEATURES

- **12 10/100/1000-Mbps Ethernet ports with copper or fibre connectivity**
- **HiGig+™ stacking port that runs at 10-Gbps or 12-Gbps speeds**
- **Integrated high-performance SerDes with XAUI™ interface on the HiGig+ port and an SGMII interface on the Gigabit Ethernet (GbE) ports**
- **Scalable up to 128 BCM5695 devices in a single configuration**
- **All address tables and buffer memory fully integrated on-chip**
- **Support for port trunking and mirroring across stacked links**
- **Support for jumbo frames of up to 9 KB in size**
- **Advanced full-duplex end-to-end flow and congestion control with head-of-line blocking prevention**
- **ContentAware™ packet filtering and classification per-port**
  - Wirespeed operation
  - Support for 802.1p, TOS/DiffServ, policing, shaping, marking, and remarking
  - Rate control of broadcast, unknown multicast and unicast packets
  - Eight queues per port
- **Support for double 802.1q VLAN tagging and VLAN translation**
- **Hardware-based IP multicast routing and forwarding**
  - Support for replication
- **Equal and weighted cost multipath routing for load balancing**
- **Advanced diagnostic features including JTAG boundary scan and BIST functionality**
- **Low power consumption of 4.65W in a 480-pin PBGA package**
- **Pin-to-pin compatible with the BCM5690**

SUMMARY OF BENEFITS

- **Enables modular, scalable, and high-performance GbE switch designs using switch fabric**
- **Facilitates seamless integration of voice, video, and data traffic through low-latency and advanced QoS**
- **Enables lower system design cost and board space utilization through superior integration and compact form factor**
- **Offers quicker time-to-market and software reuse through backward compatibility with Broadcom switch software API**

TARGET APPLICATIONS

- **Modular chassis-based Gigabit and 10-GbE switch solutions for the core of enterprise networks**
- **Scalable, stackable GbE switch solutions for distribution and wiring closet of enterprise networks**
- **High-performance standalone GbE switch solutions for enterprise wiring closets and remote branches**
- **Embedded GbE switch solutions for blade server applications within space-constrained data centers**
- **Highly reliable GbE switch solutions for telecom applications in central offices**

12-port Multilayer Gigabit Ethernet Switch with HiGig+™ Stacking

HiGig XAUI (10/12 Gbps)

Layer 3 On-Chip Tables

HiGig™

ARL	L3	Packet Buffer MMU
ContentAware™ FFP		PCI
10/100/1000 MAC		

Internal Memory for Nonblocking Performance

PCI 32/66 Interface I2C Interface

1-Gbps SerDes with SGMII Support

12 x GbE

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