



FABRIC INTERFACE WITH INTEGRATED TRAFFIC MANAGEMENT

FEATURES

- Third-generation Fabric Interface and Traffic Manager, supporting 80 Gbps of wirespeed bandwidth per device and scalable up to 11 Tbps of total fabric bandwidth in the system
- Virtual Output Queuing (VOQ) and Subscriber Queuing (SQ)
- Patented VOQ fabric architecture
- Administers Service Level Agreements (SLA)
 - Bandwidth guarantees for all VOQs
- Broadcom® SerDes designed to drive core chassis backplanes
 - Both XMIT and RCV equalization (DFE)
- SerDes operates at up to 6.5625G with 97% efficiency.
- HiGig2™ interfaces for connection to StrataXGS® devices.
- Off-chip packet buffer in DDR3 SDRAM
- Hardware-based lossless failover with auto-switchover (fault tolerant)

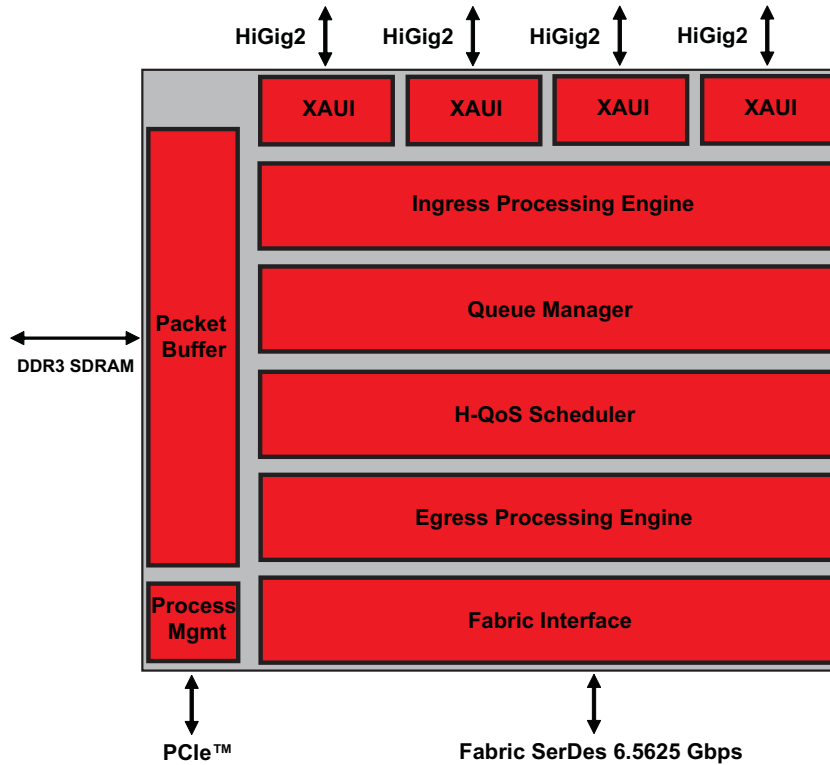
SUMMARY OF BENEFITS

- A part of the XGS Core™ Fabric solution
- Up to 2.4 GB of DDR3 SDRAM
 - Deep buffering for guaranteed goodput
- Advanced hierarchical traffic scheduler
 - SLA guarantees for carrier Ethernet
- Integrated counters and queue state
 - Significantly reduces overall BOM costs (no FPGA/SRAM)
- Direct connectivity to StrataXGS devices
 - Widest Range of Optimized Solutions
- Pin-compatible with BCM88230
 - Maximum hardware reuse for different scale designs
- Guarantees for jitter and latency
 - Enables converged packet optical systems

APPLICATIONS

- Data Center Core, Aggregation, and Top of Rack Solutions—Deep Buffering
- Metro Aggregation—Hierarchical
- Carrier Access—SLA Guarantees
- Enterprise Core—Scalable Fabric
- Packet Optical—Converged TDM and Packet Fabric

OVERVIEW



BCM88235 Functional Block Diagram

The BCM88235 XGS Core Fabric Interface with Integrated Traffic Management is the latest member of the XGS Core Fabric family.

The BCM88235 integrates packet buffering, traffic management, and a high-speed switch fabric interface. It provides four HiGig2 interfaces for connection to packet processor devices, such as the BCM56620 family

of StrataXGS switch devices or the BCM88025 family of network processors. These HiGig2 interfaces support channelized flow control.

The BCM88235 communicates with the BCM88130 fabric via fabric SerDes that operates at up to 6.5625 Gbps.

The BCM88235 is used with the BCM88130 to create the total solution of the XGS Core Fabric.

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