



## 16-PORT, 256-GBPS HIGIG™/HIGIG2™ SWITCH FABRIC

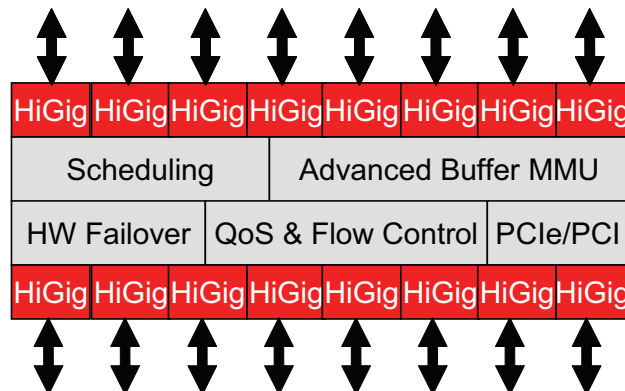
### FEATURES

- Provides 16 HiGig/HiGig2 (HG) ports, each of the HG ports individually each support 10G, 12G, 13G and 16G speeds with HiGig™ or HiGig2™ protocols
- Scalable to multiterabits in multistage Clos architecture
- Line rate full-duplex switching for 256+ Gbps
- Forwarding rate of 320 million packets per second
- 10 priority queues per port: 8 Class of Service (CoS) queues with 2 additional strict priority queues for flow control and in-band management
- Intelligent Scheduler supports Strict Priority (SP), Weighted Round Robin (WRR) & Deficit Round Robin (DRR) with built-in Weighted Random Early Discard (WRED) and Explicit Congestion Notification (ECN) for Congestion Avoidance
- Integrated Dynamic Memory Management Unit (MMU) allows proactive, intelligent allocation of buffer memory resource in real time
- Service Aware Flow Control™ (SAFC) mechanism allows in-band back pressure per CoS
- Integrated HW failover mechanism for fast detection and recovery from link failure (<10 μs)
- Configuration and management via PCI or PCI Express® (PCIe™) with 32 CPU queues

### SUMMARY OF BENEFITS

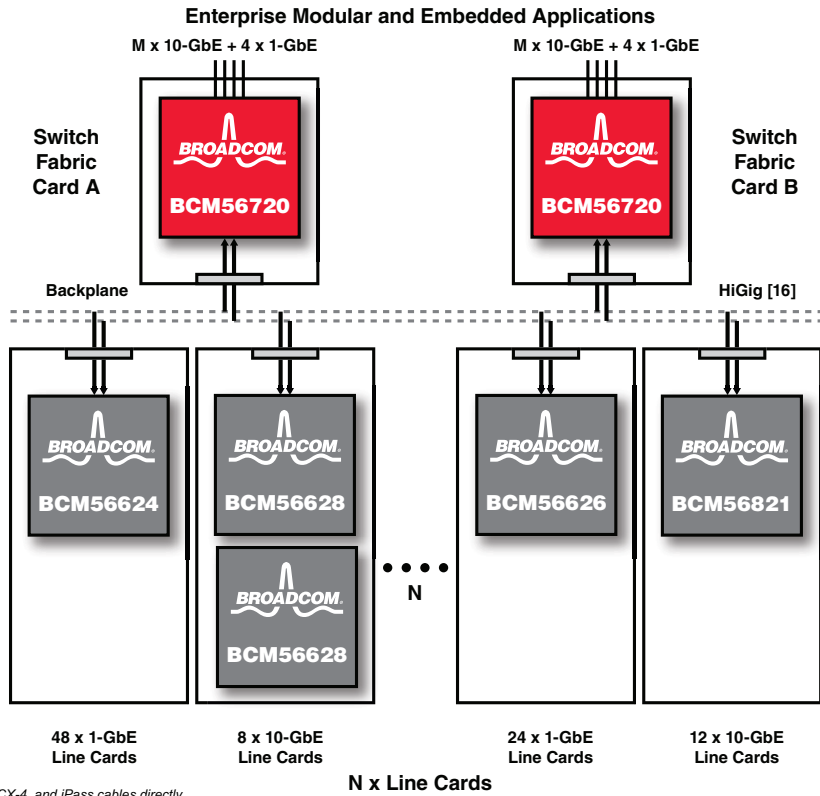
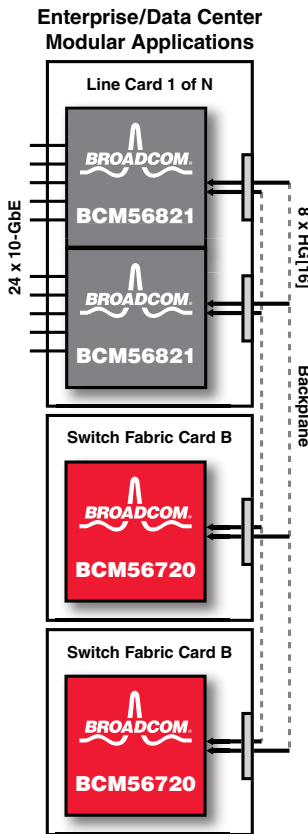
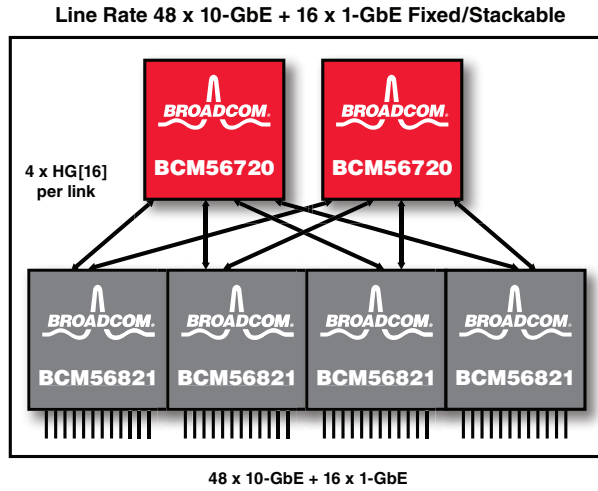
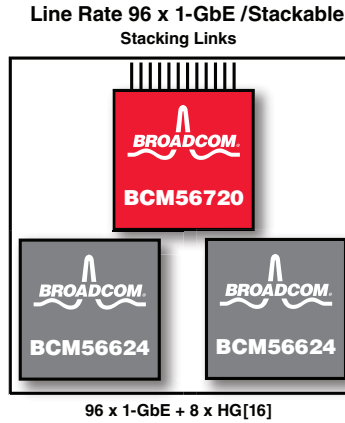
- High level of scalability and integration enables unprecedented 1-GbE and 10-GbE port densities in Enterprise modular applications.
- Robust integrated SerDes, on-chip packet buffer memory and PLLs accelerate system design, drastically reduce cost, and conserve board space.
- Sixth-generation HiGig/HiGig2 stacking technology provides increased stacking bandwidth throughput for modular chassis and fixed/stackable solutions.
- Intelligent traffic management with per CoS SAFC supports lossless delivery of storage, clustering, video, voice and data over a common, unified fabric.
- Advanced load balancing, fast HW failover and recovery (<10 μs) provide high-performance, scalable, and reliable solutions for enterprise and data center.
- Hardware failover combined with improved 16G links enable full linerate operation even during failover condition with N+1 or 1+1 redundancy.
- Per port speed and HiGig/HiGig2 flexibility enable new high-speed HG solutions while maintaining full backward compatibility with existing deployed HG switches/line cards.
- Fully compatible Broadcom software API and Software Development Kit (SDK) enables software reuse from existing deployed systems and faster time-to-market.

### Multiport Scalable HiGig Packet Fabric



# OVERVIEW

## Enterprise/Data Center Fixed/Stackable Applications



Note1: HiGig/10-GbE ports can drive connectors, backplanes or CX-4, and iPass cables directly, allowing physical switch device to be located anywhere in the system.

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