PRAESUM COMMUNICATIONS

FLEXFUSION Switch Product Brief

Features

- Up to 256 ports, any mix of:
  - RapidIO BRC1 Ports
  - RapidIO BRC3 Ports
  - RapidIO Streaming Endpoints
  - RapidIO Memory Mapped Endpoints
  - Ethernet 10GBASE-KR Ports
  - Ethernet 25GBASE-KR Ports
  - Ethernet Endpoints (NICs)
- Support for both RapidIO and Ethernet determinism and time synchronization features
- Standard AXI4 interfaces for user logic.
- Options for on-die SRAM or HBM for buffer memory
- Support for ECC and TMR for radiation effects mitigation
- Evaluation platform demo builds for:
  - AMD Zynq UltraScale+ MPSoC (ZCU102)
  - AMD Versal ACAP (VCK190)

Description

The FlexFusion switching IP is based on our Distributed Queuing Unit (DQU) switching technology. FlexFusion switches support any mix of RapidIO and Ethernet ports and give system architects the ability to use the right protocol for the job on a port by port basis. Since FlexFusion switches are based on the scalable DQU architecture, designers can create switches capable of supporting tens of gigabits of aggregate switching capacity on mid-range FPGAs to multi-terabit capacity on HBM FPGAs and ASICs.

Praesum can rapidly deliver switches with port interfaces customized for specific applications. This includes the number and type of RapidIO and Ethernet ports as well as AXI based RapidIO and Ethernet endpoints for SoC integration.

Figure 1 Sensor Streaming Switch Core Block Diagram