

## RapidIO Sensor Fusion Development Platform Product Brief

## **Features**

- Dell Precision 3430 workstation running Ubuntu preconfigured with software development tools
- Development boards with RapidIO sensor fusion switch images
- · Currently supported development boards:
  - Xilinx Zynq UltraScale+ MPSoC ZCU102 Evaluation Kit
  - Intel Arria® 10 SoC Development Kit
- All Cables and FMC adaptors needed to breakout switch ports in either 1x or 4x mode operating at up to 5 Gbps per lane

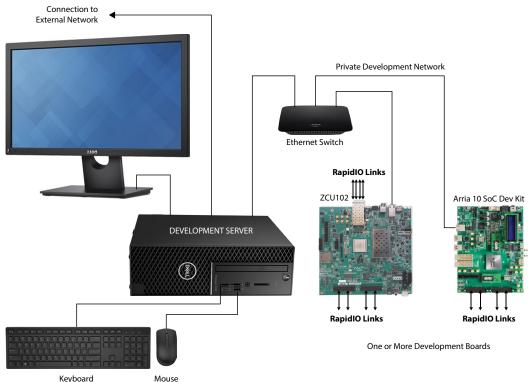
## **Description**

The RapidIO Sensor Fusion Development Platform provides all of the infrastructure needed to develop high performance sensor fusion applications running on SoC processors with RapidIO connectivity.

The target consists of standard development kits with IP images that include Praesum embedded RapidIO switch and endpoint technology. These images include a RapidIO switch with four external ports and ports that bridge over to the processor complex that is part of the SoC FPGA on the board. The SoC processors run embedded Linux distributions that has been enhanced with the Linux RapidIO firmware.

The development host consists of a Dell Precision 3430 small form factor workstation running Ubuntu Linux. The workstation is pre-loaded with software development tools for creating applications for the target. In addition the workstation is the boot server and NFS root filesystem server for the target.

Figure 1 RapidIO® Sensor Fusion Development Platform Block Diagram







RapidIO RapidIO RapidIO RapidIO Link 0 Link 1 Link 2 Link 3 Physical Physical **Physical Physical** Layer Layer Layer Layer Switch Core Streaming MM **Endpoint** Endpoint Initiator Messaging Switch Streaming Sink Streaming Source Target AXI4-Stream AXI4-Stream AXI4 MM AXI4 MM AXI4 MM Management Slave Master Master AXI4-Lite Slave Master Slave

Figure 2 Sensor Streaming Switch Core Block Diagram

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Intel Arria® 10 SoC Development Kit is a trademark of Intel Corporation

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