SG1010 StarFabric 6 Port Switch Product Development Kit

StarGen's SG1010 StarFabric Switch Product Development Kit is designed to aid system designers evaluating and developing StarFabric applications. The kit supports the SG1010 StarFabric switch, a high performance switch capable of 15 Gbps of switching. The SG1010 is used to connect multiple end nodes to produce different system topologies. The SG1010 switch box can connect multiple StarFabric devices, such as StarGen's TDM (Time Division Multiplexed) bridges or PCI bridge devices. System designers can now quickly and easily simulate system topologies, develop software, and evaluate performance based on real world system configurations. The kit includes a sample implementation of a switch box and design aids for building SG1010 based switching systems. The goal of the development kit is to shorten development times, while providing a platform for system development and evaluation.

The product development kit includes a reference switch box, software binaries, schematics and documentation. One SG1010 StarFabric Switch chip is incorporated into the design, providing 6 StarFabric links. Each link is capable of running at 2.5 Gbps full duplex and can be bundled to support 5 Gbps. RJ45 connectors are provided as connections to other switch or bridge products. These devices can be connected to the switch box by using standard CAT5 cables, with distances of up to 5 meters. Higher grade cables can to used to extend distances up to 13 meters. The switch box enclosure is 1U high and includes an external power supply. LEDs are provided to show link connection status and connection numbers.

The SG1010 Product Development Kit also comes with a set of software tools for system evaluation. StarGen's StarView and PVX are provided to aid system designers evaluating different StarFabric topologies. StarView is a graphical tool providing diagnostic and analytical functions for components within a StarFabric. The StarView Graphical User Interface (GUI) is supported on Windows 2000/XP and Linux systems. The StarView Agent is supported on Windows, Linux, and VxWorks systems. Pci Validation eXtension (PVX) is an MSDOS utility that allows users to access PCI devices directly in configuration, memory, and IO space on any x86 platform. PVX supports a windowed text user interface (TUI) to provide an intuitive user friendly environment similar to the Borland IDE.

STARGEN

Evaluation Kit Features

Hardware Features
- 6 StarFabric links at 2.5 Gbps
- SG1010 Switch
- 64K SROM
- Front Link Access via RJ45

Power Requirements
- 3.3V and 1.5V power
- External 5V power supply - supplied

Diagnostic Features
- JTAG support
- Serial link status LEDs

Routing Methods
- Address Routing
- Path Routing
- Multicast Routing

Box Dimensions
- 1U H X 7.1" W X 5" D
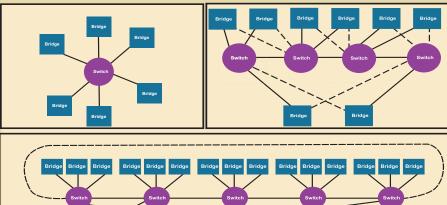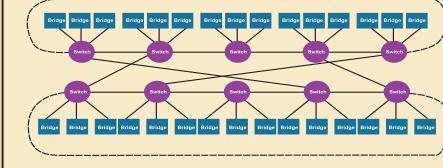- 1UH X 209mm W X 126mm D

Evaluation Software Features
- StarView, PVX

Documentation
- Evaluation Board User Guides
- Software Application notes
- Schematics
- Bill of material

Part Number
- PK1SWPED-B0

SG1010 evaluation board kit enables the development of multiple different system topologies. These topologies can scale from a relatively small fabric to large fabrics with multiple bus segments.