

# SG1010 StarFabric 16 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 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. Four SG1010 switch chip are incorporated into the design providing 16 external 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 be used to extend distances up to 13 meters. Connecting multiple switch boxes allows the creation of large topologies of switches and bridges. The switch box is 1U high enclosure 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. 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.

## Hardware Features



## Evaluation Kit Features

- 16 StarFabric links at 2.5 Gbps
- 4 SG1010
- 64K SRAM
- Front Link Access via RJ45
- 1U H X 12" W X 5" D
- 1UH X 354mm W X 126mm D

### Power Requirements

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

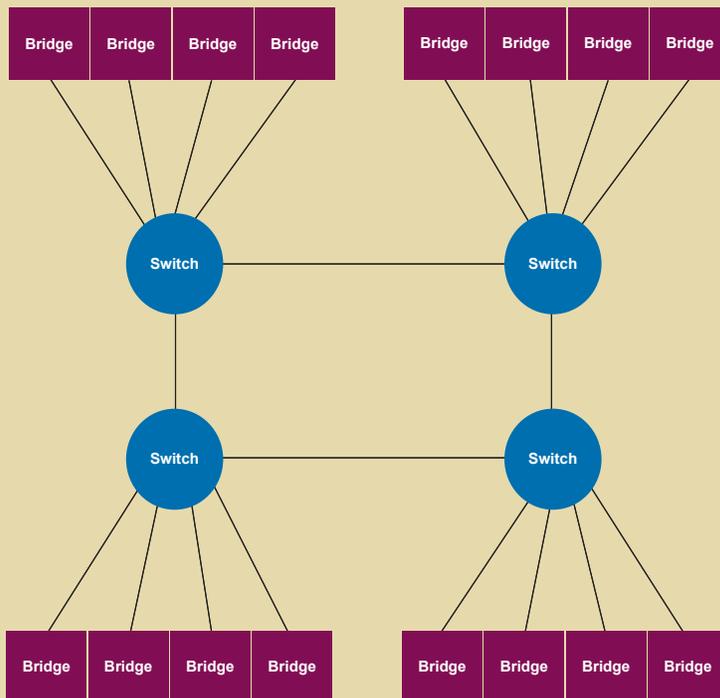
### Diagnostic Features

- Serial link status LEDs

### Routing Methods

- Address Routing
- Path Routing
- Multicast Routing

### Box Dimensions



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.

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### Evaluation Software Features

- StarView, PVX

### Documentation

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

### Part Number

- PK1SWPED-C0

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