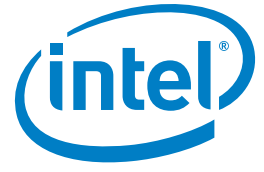


## PRODUCT BRIEF

Intel® True Scale Fabric %&&\$Gk jhW



# Intel® True Scale Fabric 12200 Switch

36-Port 40Gbps Switch, Managed, Fixed Configuration

## Overview

The Intel® 12200 is a 36-port, 40Gbps switch based on InfiniBand® architecture that cost-effectively supports a cluster of up to 36 servers, or provides an edge switch option for a larger fabric. This fixed-configuration switch is a member of the 12000 series, which delivers an exceptional set of high-speed networking features and functions.



# Highlights

- 36 ports of InfiniBand® QDR-40Gbps performance
- 2.88Tbps aggregate bandwidth
- Intel® True Scale Architecture, with scalable, predictable low latency
- Multiple Virtual Lanes (VLs) per physical port
- Supports virtual fabric partitioning
- Small QDR data center footprint with cost-effective edgeport density
- Chassis and fabric management through optional embedded management module or Intel® Fabric Suite (IFS) management solution that provides an expanded set of fabric views and fabric tools
- RoHS 6 compliant
- Minimal power and cooling requirements
- Complies with InfiniBand Trade Association\* (IBTA\*) v1.2 standard



## Benefits

- QDR line rate performance
- Ultra-low latency under heavy loads
- Flexible quality of service (QoS) maximizes bandwidth use
- Protects existing InfiniBand investments
- Highly reliable and available
- Easy to manage
- Minimal power and cooling requirements

## Low Latency

Intel's 12200 switch provides scalable and predictable low latency, even when operating at 90 percent of bandwidth. Predictable latency means HPC applications can scale without diminished cluster performance or costly system tuning efforts.

## Flexible Partitioning

The Intel 12200 advanced design is based on an architecture that provides a comprehensive set of virtual fabric partitioning features that enable the InfiniBand® fabric to support the evolving requirements of an organization. The Intel® True Scale Architecture, together with IFS, allows mission-critical applications to share the fabric, while maximizing bandwidth.

## Investment Protection

The 12200 Series switch products adhere to the IBTA\* version 1.2 specification, which ensures interoperability with all IBTA\* compliant devices.

## Highly Reliable

The highly available 12200 switch design integrates state-of-the-art fault detection and recovery capabilities.

## Easy to Manage

The 12200 switch takes advantage of Intel's advanced IFS software for fast installation and configuration. IFS has tools that automate and accelerate cluster installation, verification, and administration for both hosts and switches. IFS integrates easily with existing network management tools, and has comprehensive reports that supply a wide range of details about the environment.

## Power Optimized

Maximum performance is delivered with minimal power and cooling requirements as part of Intel's commitment to developing green solutions for the data center.

## Switch Options

- 12200-BS01: 36 ports, single power supply
  - 12200-BS23: 36 ports, dual power supply
  - 12200-BS01-MM: 36 ports, single power supply, embedded management module
  - 12200-BS23-MM: 36 ports, dual power supply, embedded management module
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## Switch Specifications

- 40/20/10Gbps auto-negotiation links
  - Thirty-six 4X QDR ports or eighteen 8X QDR ports
  - Switching capacity: 2.88Tbps
  - VLS: Eight plus one management
  - Maximum MTU size: 4096 bytes
  - Maximum multicast table size: 1024 entries
  - Supports QSFP transceivers, and optical and copper cable specifications
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## Interoperability

Compliant with IBTA\* 1.0a, 1.1, and 1.2

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## Fabric Management

### Management Methods

- Optional external server-based IBTA\*-compliant Subnet Manager (SM)
- Optional embedded fabric management
- IBTA\*-compliant Subnet Management Agent (SMA) and Performance Management Agent (PMA)

### LEDs

- One per InfiniBand\* port
  - Two for InfiniBand\* switch status
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## Physical Specifications

### Dimensions

- H x W x D: 43.2 x 439.6 x 362.5 mm  
(1.7 x 17.3 x 14.5 in)

### Weight

- 6.8kg (15lbs)
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## Environmental Specifications

### Operating

- 0° – 40°C
- Humidity: 5–85 percent non-condensing
- Altitude: 0–10,000 feet
- Vibration: 5–500Hz, 0.27g, 5 sweeps
- Shock: 3.5g, 3ms, half sine, 20 repetitions

### Electrical

- Voltage: 100–240 VAC; 50–60Hz
- Power Consumption: 85–226W

### Non-operating

- -40° – 65°C
- Humidity: 5–90 percent non-condensing
- Altitude: 0–40,000 feet
- Vibration: 2–200Hz, 0.5g, 5 sweeps
- Shock: 50g, 4216mm/s, 13msec, 3-axis

### Airflow

- Front-to-back; back-to-front for selected OEMs

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