

Intel® Media Switch IXE5416

16-port Gigabit Device

developer.intel.com

Product Description

The Intel® Media Switch IXE5416 16-port Gigabit Device facilitates the design of high port density, high-performance, and media-ready 10/100/1000 switching systems. The IXE5416 is a single-chip 16-port Gigabit device for Layer 2 and Layer 3 Gigabit Ethernet switching and routing. The IXE5416 enables you to design systems that deliver high-bandwidth applications at wire speed for voice, video and data to the desktop.

The IXE5416 supports wire-speed switching and IP routing, along with traffic classification, Quality of Service (QoS), filtering, and prioritization based on Layer 2/3/4 information. The IXE5416 offers non-blocking performance on all ports, switching packets at the rate of 24 Mpps (64-byte packet size).

This device is suited for standalone switch/routers and stackable solutions when combined with other Intel Media Switch Devices—offering solutions for workgroup, enterprise, campus backbone switching/routing, Storage Area Networks, and edge-to-core router interconnects. A CPU and physical interfaces/transceivers are the only additional components you need to deliver a wire-speed 16-port Gigabit Ethernet switch/router with classification, prioritization and guaranteed

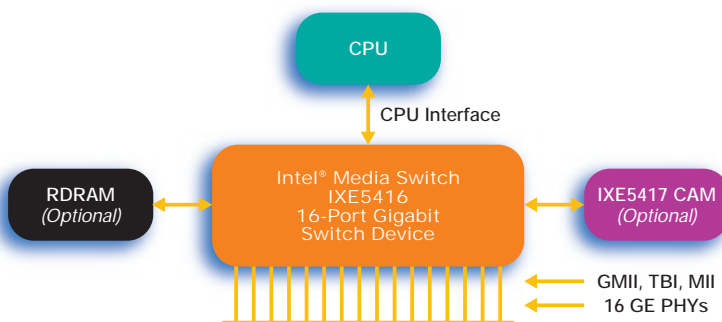


bandwidth. Optional Intel® Media Switch IXE5417 Content-Addressable Memory (CAM) device is available for extending the address table size.

Applications

Key applications for the the IXE5416 include:

- 16–24 port Gigabit Layer 2 workgroup switch
- 16–24 port Gigabit Layer 2/3/4 workgroup switch
- Daisy chain or Star stackable 10/100/1000 Layer 2/3/4 switch
- High port count Layer 2/3/4 switch/router solution suitable for stackable and chassis switches. (Can be incorporated into stacking solutions with the Intel® Media Switch IXE2424 10/100+Gigabit L2/3/4 Advanced Device)



Features

- Single-chip, 16-port Gigabit switch/router with Layer 2/3/4 support
- Integrated 10/100/1000 Ethernet MACs
- Wire-speed performance across all ports in switching or IP routing modes
- Link aggregation
- Advanced traffic prioritization, QoS, and bandwidth management capabilities
- VLAN support according to IEEE 802.1Q standards, ports, and protocol
- Advanced multicast, broadcast, and filtering capabilities

Benefits

- High integration, compact footprint, and low power dissipation enable the design of high port density systems at low per-port cost
- Enables easy migration from 10/100 to Gigabit
- Delivers congestion-free performance through enterprise switches during peak load periods
- Enables meshed configurations with redundant paths for fail-safe networks
- Enables the convergence of voice, video, and data traffic over Ethernet/IP networks
- Enables flat plug-and-play networks that are easy to maintain
- Enables video and voice multicasting over IP networks
- Protects from broadcast storms
- Enables high-performance intranet firewalls

Support Collateral/Tools

Item	Description	Order Number
Manuals	<ul style="list-style-type: none"> ■ Intel® Media Switch IXE5416 16-port Gigabit Switch Device Developer's Manual ■ Intel® Media Switch IXE5417 Content-Addressable Memory Developer's Manual 	<p>Contact local sales rep</p> <p>Contact local sales rep</p>

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