

ES4625/ES4649 L3 Intelligent Gigabit Ethernet Stackable Switch



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Product Overview

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Key Benefits

Great Fault-Tolerance

Spanning tree is a link management protocol that provides path redundancy while preventing undesirable loops in the network. The Edge-Core ES4625/ES4649 delivers not only the IEEE802.1D protocol (Spanning Tree), but also Edge-Core proprietary Fast Mode Spanning Tree, IEEE802.1s (Multiple Spanning Tree) and IEEE802.1w (Rapid Spanning Tree). Besides the Spanning Tree for Fault-Tolerance, the ES4625/ES4649 also provides a redundant power supply inlet in the rear panel for power-fault-tolerance to ensure a reliable system.

Advanced Network Security Mechanism

As networks grow and branch out to remote locations, network security increases in importance and administration complexity. Customers need to protect networks and network services from unauthorized access by remote users. The Edge-Core ES4625/ES4649 provides multiple security algorithms such as Port Security, SSL, Web Management Encryption, RADIUS and TACACS+ to protect data communication and to ensure data privacy.

Full Range of interface Options using SFP

Instead of providing lots of expansion modules options, the Edge-Core ES4625/ES4649 offers SFP for covering great cabling and distance requests based on customer requirements. One of the great advantages for vendors is that it eliminates module inventory management.

10G Uplink Capability

Effective for future expansion convenience and investment savings, the ES4625/ES4649 provides 1 optional I/O module for 10G uplink to fulfill any bandwidth-eager customer requirements. What benefits this 10 Gigabit Ethernet slot can provide for the core and metro application are:

- Improved performance
- Future fiber cost savings—Fiber optic Ethernet link utilization is improved by a factor of 10G uplink to fulfill any bandwidth-eager customer requirements
- Simplified operations—Reduced number of links simplify fiber cross connect management

Eliminates Network Bottlenecks

To secure bandwidth for bandwidth-hungry traffic, the Edge-Core ES4625/ES4649 not only offers IEEE 802.3ad compliant Link Aggregation, but also Cisco's Ether Channel for static trunks. Users have the option to choose what best suits their needs. This is a user-friendly design to meet a customer's preference. In addition, its high port density provides a cost-effective solution by fulfilling the requirements of bandwidth-eager backbone networks.

Advanced Stacking Architecture

Accton's advanced closed loop stacking architecture allows you to connect up to 8 units of ES4649/ES4625 into a single manageable unit of up to 384 ports. The ES4649 can be mixed stacked with any ES4625 which provides you more flexibility of future expansion as your business grows. The closed loop stacking architecture is designed to protect your network investment with resilient links. As one of stacked units crashes, the other units in the same stack can still keep running. Furthermore, the stacking bandwidth is up to 40 Gbps.

Specification

Physical Ports

- 20/44 Giga RJ-45 ports
- 4 Giga combo port-RJ45/ SFP
- 1 optional I/O module for 10G uplink or 8-port Gigabit SFP
- 1 RS232 port
- 1 Redundant Power (DC) connector
- 1 RJ-45 management port

L2 Features

- Provides Redundant Power Supply (RPS)
- The 10/100/1000BASE-TX ports support auto-sensing, auto-negotiation
- Supports Jumbo frame up to 9KB
- Provides wire speed of L2/3 switch/routing performance
- Supports up to 16K MAC address entries
- Supports Flow Control
 - Provides IEEE802.1x for full duplex mode
 - Back-Pressure flow control in half duplex mode
- Provides store-and-forward forwarding scheme
- Provides HOL (Head of Line) blocking prevention
- Provides Broadcast storm protection
- Supports IGMP snooping
- VLAN Supports
 - Supports IEEE 802.3ac frame extension for VLAN tagging
 - Supports IEEE 802.1Q VLAN
 - Supports 256 VLANs entries, out of 4K VLAN ID
 - Supports Port-based VLAN
 - Supports Protocol-Based VLAN (IEEE 802.1v)
 - Private VLAN
 - Supports GVRP protocol for dynamic VLAN management (number of VLANs 256)
- Provides Spanning Tree
 - Provides Spanning Tree (IEEE 802.1D)
 - IEEE 802.1w, Rapid Reconfiguration Spanning Tree
 - IEEE 802.1s Multiple Spanning Tree supported up to 32 instance
- Proprietary Fast forwarding mode supported.
- Provides 802.3ad Link Aggregation and LACP
- Complies to IEEE 802.3ad
- Cisco EtherChannel compatible
- Standalone Configuration
 - Up to 6 trunk links group
 - Up to 8 ports per trunk link group
- Stacking configuration (for 8 units)
 - Up to 12/32 trunk links (depends on the number of device in the stack)
 - Up to 2/8 gigabit ports per trunk link
 - Up to 2/4 10GE ports per trunk link
- Supports unicast/multicast traffic balance over trunk ports
 - Traffic balancing for unicast traffic is based on source/destination MAC address
 - Traffic balancing for multicast traffic is based on destination MAC address

L3 Features

- Provides IPv4 routing at wire speed in ES4625
- Provides up to 4K IP address entries
- Provides Static IP routes (128 entries)
- Provides Multi-netting
- Provides Supernetting (CIDR)
- Provides RIP I (RFC 1058) and RIP II (RFC2453)
- Provides OSPF (RFC2328) routing
- Provides IP Multicast Routing: DVMRP, PIM-DM/SM
- IP Redundancy - VRRP (RFC 2338) supported
- ARP (RFC 826)
- Provides DHCP/BOOTP (RFC 951) relay
- Provides DHCP server (RFC 2131)/client
- DNS support server (proxy)

Security

- User/Password protected system management terminal
- L2/L3/L4 access control list
- RADIUS client
- TACACS+ client
- Secure Shell (SSH/Secure Telnet)
- HTTPS/SSL
- IEEE 802.1x

Quality of Service

- 802.1p based CoS
- 8 priority queues per port
- WRR for priority queue
- Strict Scheduling priority queue
- IP TOS/Precedence based CoS
- DSCP based CoS
- TCP/UDP
- Bandwidth Management: both Ingress and Egress
- DiffServ*

Management

- Provides 1 Male DB9 RS-232C console interface configured as DTE
- Provide 1 out of band Ethernet management port
- Supports Cisco-like Command Line Interface (CLI) using VT-100 style terminal, 4 sessions
- Supports Telnet management
- Supports Embedded Web-based Management
- Supports software upgrade/download via XMODEM or TFTP
- Supports configuration download/upload via TFTP
- Support Port Mirroring
- Supports BOOTP/DHCP client for IP address assignment
- Support ARP Proxy
- Supports Remote Ping
- Supports dual copies of code
- Supports multiple copies of configuration
- Supports System/Crash/Error log
- Supports SNMP (RFC 2030)
- Supports SNMPv1/v2c/v3*
- Supports RFC 2819 RMON group (1, 2, 3 & 9)
- Supports MIBs

Stacking Features

- Stacks up to 8 units
- Mix stack of ES4625 and ES4649
- Max number of ports in the stack: 384 ports
- Auto master selection
- Auto configuration update
- Resilient stacking: hot insertion and removal of units within stack
- 40Gbps for Stacking Bandwidth

Mechanical

- Dimensions: (W x D x H): 44cm x 41cm x 44cm

Performance

- Switch Fabric: 80Gbps
- MAC addresses: 16K

Safety

- CSA/NRTL (UL1950, CSA 22.2.950)
- TUV/GS (EN60950)
- CB

IEEE Standards

- IEEE 802.3 10BASE-T [1]
- IEEE 802.3u 100BASE-TX and 100BASE-FX [2]
- IEEE 802.3z[3] 1000BASE-SX
- IEEE 802.3x flow control support
- IEEE 802.1D (Bridging), 1993
- IEEE 802.1Q (Virtual LAN) 1998
- IEEE 802.3ad (LACP)
- IEEE 802.1s
- IEEE 802.1w

Ordering Information

Model Number	Product Description
ET4101-SX	Gigabit Interface Converter (Distance:500m ; Wavelength:850nm)
ET4101-LX	Gigabit Interface Converter (Distance:10km ; Wavelength:1310nm)
ET4101-LHX	Gigabit Interface Converter (Distance:40km ; Wavelength:1310nm)
ET4101-ZX	Gigabit Interface Converter (Distance:80km ; Wavelength:1550nm)

* future specification

