

# ES3526XA

## L2 Fast Ethernet Standalone Switch with IP Stacking

### Product Overview

The new Edge-Core ES3526XA is a Fast Ethernet Layer 2/4 switch featuring 26 ports; 24 10/100 ports and 2 combo Gigabit Ethernet RJ-45/SFP (Small Form Factor Pluggable) ports. It is ideal for desktop Fast Ethernet connectivity and wiring closet installations. Using IP Clustering for a virtual stack of up to 36 switches as a single entity with a single IP address. Advanced security to add IP source guard and WEB auth. feature to merge with TACACS authentication. This switch is packed with features and is a cost-effective solution that brings continuous availability, enhanced security and advanced QoS to the network edge, while maintaining simplicity of management.

### Key Features and Benefits

#### Performance and Scalability

With 8.8Gbps switching capacity, the ES3526XA delivers wire-speed switching performance on all gigabit ports, allowing users to take full advantage of existing high-performance, gigabit integrated Servers, PCs and laptops by significantly improving the responsiveness of applications and file transfer times.

There are four Gigabit Ethernet combo ports for uplink flexibility, allowing copper or fiber uplinks.

#### Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, to ensure faster recovery from failed links, enhancing overall network stability and reliability.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and providing load balancing and fault tolerance for uplink connections.

IGMP snooping prevents flooding of IP multicast traffic and limits bandwidth intensive video traffic to only the subscribers.

Broadcast Storm Control prevents faulty end stations from degrading overall system performance.

Optional Redundant Power Supply provides uninterrupted power.

#### Comprehensive QoS

4 egress queues per port enable differentiated management of up to 4 traffic types.

Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allowing maximum control of network resources

#### Enhanced Security

Port Security ensures access to switch ports based on MAC address, limits the total number of devices from using a switch port and protects against MAC flooding attacks.

IEEE 802.1x port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, TCP/UDP ports. This is done by hardware, so switching performance is not compromised.

Security Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypt network management information via Telnet and web, providing secure network management.

TACACS+ 3.0/RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

Private VLAN isolates edge ports to ensure user privacy.

#### Simple Management

Industry standard Command Line Interface (CLI) via console port or Telnet provides a common user interface and command set for users to manipulate the switch.

Embedded user friendly web interface helps users quickly and simply configure switches.

Four groups of RMON are supported for traffic management, monitoring and analysis.

When upgrading firmware or fine tuning configuration, the dual software images and multiple configuration files can be used for backup.

TFTP can be used to backup or restore firmware and configuration files.

Support IP Clustering management up to 36 devices



Features

Physical Ports
24 RJ-45 10/100Base-T ports 2 Combo Gigabit (RJ-45/SFP) ports 1 RS-232 DB-9 console port
Performance
Switching Capability: 8.8Gbps Packet Buffer Size: 2Mb MAC Address Table: 8K
L2 Features
Auto-negotiation for port speed and duplex mode Flow Control: <ul style="list-style-type: none"><li>IEEE 802.3x for full duplex mode</li><li>Back-Pressure for half duplex mode</li></ul> Spanning Tree Protocol: <ul style="list-style-type: none"><li>IEEE 802.1D Spanning Tree Protocol (STP)</li><li>IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)</li><li>IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)</li></ul> VLANs: <ul style="list-style-type: none"><li>Supports 255 IEEE 802.1Q VLANs</li><li>Port-based and MAC-based VLANs</li><li>IEEE 802.1v Protocol-based VLANs</li><li>Private VLAN</li><li>GVRP</li><li>Supports QinQ (*)</li></ul> Link Aggregation: <ul style="list-style-type: none"><li>Static Trunk</li><li>IEEE 802.3ad Link Aggregation Control Protocol</li><li>Total 12 Trunks (including Cisco Ether Channel Like trunks (2~8 port/trunk FE 2 port/trunk GE) (*)</li></ul> IGMP Snooping: <ul style="list-style-type: none"><li>IGMP v1 and v2 snooping &amp; IGMP Queried</li></ul> MVR (Multicast VLAN Registration)(*) DHCP Option 82(*) Supports jumbo frames up to 9KB

QoS Features
Priority Queues: 4 hardware queues per port Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number Supports WRR and Strict scheduling Bandwidth Control: <ul style="list-style-type: none"><li>Egress rate limiting: 512Kbps, 1Mbps, 3.3Mbps granularity for total 30 levels</li><li>Ingress rate limiting: 512Kbps, 1Mbps, 3.3Mbps granularity for total 30 levels</li></ul>
Security
Supports IEEE 802.1X <ul style="list-style-type: none"><li>Port based Access Control</li><li>Guest VLAN(*)</li><li>VLAN assignment(*)</li></ul> RADIUS authentication TACACS+ authorization and accounting(*) TACACS+ 3.0 Access Control List SSH (v1.5/v2.0) SSL

Management
Switch Management: <ul style="list-style-type: none"><li>CLI via console port or Telnet</li><li>WEB management</li><li>SNMP v1, v2c, v3</li></ul> Firmware & Configuration: <ul style="list-style-type: none"><li>Dual firmware images</li><li>Firmware upgrade via TFTP server</li><li>Multiple configuration files</li><li>Configuration file upload/download via TFTP server</li></ul> Supports RMON (groups 1, 2, 3 and 9) Supports BOOTP, DHCP for IP address assignment Supports SNTp <ul style="list-style-type: none"><li>Topology Management</li><li>Performance Management</li><li>Configuration Management</li><li>Event Management</li><li>SNMP Management</li><li>DHCP Option 82 (*)</li></ul> IP Source Guard(*) IP Clustering : up 36 devices WEB authentication(*) UPnP(*) Banner(*)

Mechanical
Dimensions (H x W x D): 4.3 x 44 x 23 cm (1RU) LED Indicators: Port, Uplink, System, Diagnostic

Safety
cUL(CSA 22.2. NO 60950-1 & UL60950-1) CB(IEC60950-1)

Electromagnetic Compatibility
CE Mark FCC Class A VCCI Class A CISPR Class A

Environmental Specifications
Temperature: <ul style="list-style-type: none"><li>IEC 68-2-14</li><li>0℃ to 40℃ (Standard Operating)</li><li>-40℃ to 70℃ (Non-Operating)</li></ul> Humidity: 5% to 95% (Non-condensing) Vibration: IEC 68-2-36, IEC 68-2-6 Shock: IEC 68-2-29 Drop: IEC 68-2-32

Warranty
Limited lifetime warranty

Ordering Information

Optional Accessories
ET4201-SX ET4201-LX ET4201-LHX ET4201-ZX

Product Description
Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm) Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm) Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm) Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)  SNMP Network Management Software