



ERICSSON

IPECS ES-3000 SERIES

FULLY MANAGED ETHERNET SWITCHES

The iPECS ES-3000 family of fully-managed, Layer 2 Switches support enterprise-class switching features, including advanced QoS, security and simplified and intuitive management features, allowing network administrators to build high-performing, robust networks, affordably. The ES-3000 switches are perfect for businesses looking for solutions with the latest enterprise class switching features at an affordable price.

The iPECS ES-3000 series is available in 6 models from Fast Ethernet to Gigabit Ethernet offering multiple choices to meet the demands of various high-performance network environments. Businesses can extend their existing networks or build new, reliable and high-performing ones using sophisticated features optimized for SMBs and enterprises that support both aggregation and access-level solutions.

To reduce the growing complexity and often laborious and time-consuming process, Ericsson-LG offers an industry-unique solution called the iPECS Unified Device Manager (UDM). The iPECS UDM enables network administrators to quickly and easily configure and manage multiple iPECS switches and other Link Layer Discovery Protocol (LLDP) compatible devices across the network contributing to reduced installation and operation time, effort and expense for businesses with limited resources and budgets.

The iPECS ES-3000 Series also incorporates the latest technologies such as Green Ethernet and draft standard POE+. These can connect to high power-consuming devices like 802.11n APs and multi-media videophones by providing up to 30 watts to these devices while also connecting to other low power devices.



HIGHLIGHTS

Enterprise-class Layer 2 Switching with advanced features

STP/RSTP/MSTP, IGMP Snooping, VLAN, Link Aggregation, LLDP, Storm Control, Jumbo Frame

Fully Managed

Managing multiple iPECS switches from a single intuitive graphic user interface

Advanced Built-in Security

Advanced built-in security including full 802.1x RADIUS authentication, filtering, ACL

VoIP and UC Friendly

Advanced L2 QoS, Economical & Flexible POE using 802.3af & 802.3at







Green Ethernet

Environment-friendly design for power saving via link connection and cable length

Easy to Install

Auto-negotiation, Auto-MDI/MDIX, at-a-glance tri-colored status LED

iPECS ES-3000 SERIES

| Model | Ports | Speed | PoE | Uplink | |
|-----------|-------|---------------|----------|------------------------|---|
| ES-3026 | 24 | Fast Ethernet | N/A | 2 SFP/RJ-45 Combo port |  |
| ES-3026P | 24 | Fast Ethernet | PoE/PoE+ | 2 SFP/RJ-45 Combo port |  |
| ES-3024G | 24 | GigE | N/A | 4 SFP ports |  |
| ES-3024GP | 48 | GigE | PoE/PoE+ | 4 SFP ports |  |
| ES-3052G | 48 | GigE | N/A | 4 SFP ports |  |
| ES-3052GP | 48 | GigE | PoE/PoE+ | 4 SFP ports |  |

KEY BENEFITS

Easy to Install

The iPECS Ethernet Switch has plug-and-play capabilities such as auto-negotiation of speed and duplex mode, Auto-MDI/MDIX, and at-a-glance tri-colored intuitive status LED indicators on top of the ports. Its intuitive web-based user interface makes installation and administration much easier.

Smart Management

Ericsson-LG offers a unique management tool, the iPECS Unified Device Manager (UDM), which enables the management of all iPECS product lines and LLDP-compatible appliances from IP telephony to data networks through a single management system. The iPECS UDM simplifies network administration and management through the use of a single consistent and familiar interface.

Green Ethernet (Gigabit models only)

The iPECS ES-3000 Gigabit Ethernet Switches incorporate the latest green Ethernet technology to help save energy costs. The iPECS ES-3000 series switches detect link status, allowing each port to power down when the port is not connected or the connected device is not active. In addition, it detects cable length and adjusts the signal strength accordingly.

Advanced Quality of Service (QoS)

Prioritization of the data on the network is essential in order to ensure that mission-critical applications, such as voice, are delivered in a timely manner. The iPECS Ethernet Switch is able to classify packets into one of four different priority queues and serve each packet in the priority queues using WRR (Weighted Round Robin) or SPQ (Strict Priority Queuing) method.

Flexible Power over Ethernet (PoE models only)

The Ericsson-LG iPECS Ethernet PoE switches are designed to support both 802.3af standard and 802.3at draft standard. Therefore, SMBs flexibly and cost effectively may connect standard and high-powered devices on a single Ericsson-LG PoE switch. In addition, the PoE control and monitoring can be easily managed via the intuitive web user interface.

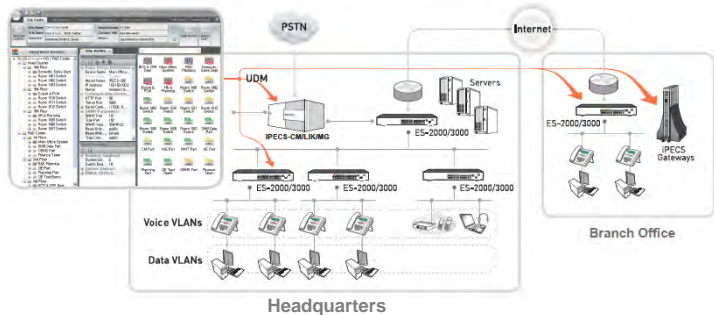
Secure Networking

The iPECS ES-3000 Ethernet Switches support key security features like RADIUS authentication and authorization as well as multi-layer filtering. Network management via web management sessions are secured with HTTPS encryption.

Enterprise-class L2 switching features available in iPECS ES-3000 Series

| | |
|------------------------|--|
| • STP, RSTP, MSTP | Provides path redundancy while preventing undesirable loops in the network, thus improving network resiliency and availability |
| • IGMP snooping v1/2/3 | With IGMP Snooping enabled, eliminate unnecessary traffic and improve overall network performance |
| • Advanced Security | 802.1x/RADIUS/TACACS+ Authentication & encryption, Advanced ACL, Guest VLAN, DHCP Snooping, Dynamic ARP Inspection, SSHv2, HTTPS |
| • Advanced QoS | Standard L2/L3 QoS Features + Priority marking, L2-L4 Policing (Metering), Time-Based ACL, CPU Interface Filtering |
| • Link aggregations | Group together any number of ports automatically using LACP, 8 members per group, 12 groups |
| • VLAN | Segment the network by grouping users for optimal use of the network – Port/Protocol/MAC/IP based VLAN, 256 VLANs |
| • Power over Ethernet | Provides power based on both 802.3af standard and 802.3at draft standard |
| • Single IP Clustering | Single IP Management via clustering up to 36 switches |

Converged Network using iPECS Ethernet Switch Solutions



FEATURE SPECIFICATIONS

| List | Feature | Detailed List | ES-3000 Series |
|-----------------|----------------------------|--|----------------|
| L2 Switching | Spanning Tree Protocols | 802.1d(STP)/802.1w(RSTP)/802.1s (MSTP) | Yes |
| | | BPDU filter/guard | Yes |
| | | Root Guard | Yes |
| | Link Aggregation (802.3ad) | Max number of groups | 12 |
| | | Max number of members per group | 8 |
| | | Source and Destination MAC based load balance | Yes |
| | VLAN | VLAN IDs | 4096 |
| | | Max Number of active VLANs per Switch | 256 |
| | | Port/MAC/IP based VLAN, Private VLAN, Voice VLAN, GVRP | Yes |
| | | MVR (Multicast VLAN Registration), VLAN Double tagging (Q in Q) | Yes |
| | LLDP (802.1ab) | Link Layer Discovery Protocol | Yes |
| | IGMP Snooping | IGMP Snooping v1/2/3, Snoop IGMP packets per VLAN, Join / Leave, Fast leave, Quierer | Yes |
| | | Max Number of multicast groups | 256 |
| Traffic Control | QoS | QoS on L3 layer using TOS field of IP packet header | Yes |
| | | DSCP to 802.1p mapping | Yes |
| | | IPv4 Diffserv | Yes |
| | | QoS on L2 layer using TCI field of VLAN header | Yes |
| | | Marking / Remarking | Yes |
| | | Strict Priority Queueing, Weighted Round Robin Queueing | Yes |
| | ACL | MAC Based ACL | Yes |
| | | Source and Destination IP Based ACL | Yes |

FEATURE SPECIFICATIONS

| List | Feature | Specifications | ES-3000 Series |
|-----------------|-------------------------|--|--------------------|
| Traffic Control | ACL | Source and Destination Port Based ACL | Yes |
| | | Protocol type based ACL | Yes |
| | | Time based | Yes |
| | | Number of ACL rules | 512 |
| | | Extended IPv6 ACL | 48-port model only |
| | MAC Limit | MAC limit per port, MAC based filtering | Yes |
| | Flow control (802.3x) | Full / half duplex, Back pressure flow control for half duplex | Yes |
| | Rate Limiting / Shaping | Port based rate limiting/shaping | Yes |
| | Storm Control | Broadcast and Multicast packet control | Yes |
| Security | Port Security | Static/Dynamic port security (MAC based) | Yes |
| | DHCP | DHCP Snooping, IP Source Guard (IP Spoofing prevention) | Yes |
| | | Dynamic ARP Inspection | Yes |
| | Authentication | RADIUS/TACACS+ Authentication and Accounting | Yes |
| | | 802.1x Extensible Authentication | Yes |
| | | 802.1x Multiple Host Multiple Authentication per Port | Yes |
| | | 802.1x Guest VLAN with EAP enabled on port (GVLAN-SHSA) | Yes |
| | | 802.1x MAC based EAP Authentication (Clientless EAP) | Yes |
| | | 802.1x RADIUS assigned VLA in MHMA mode | Yes |
| | | User/password authentication (up to 5 users) | |

FEATURE SPECIFICATIONS

| List | Feature | Specifications | ES-3000 Series |
|------------|----------------------------|--|----------------|
| Management | Access (Command Interface) | HTTP, HTTPS, Telnet, SSH, SNMP v1/2/3, SNMP trap | Yes |
| | MIB | TCP/IP based internets (RFC 1213), RMON v1/2 (RFC 2819 / RFC 4502) | Yes |
| | DHCP | DHCP Client, DHCP Snooping, DHCP Provision | Yes |
| | File Transfer | FTP Client, TFTP Client | Yes |
| | Port Mirroring | Received traffic, Transmit traffic, Received and Transmit traffic, N:1 mirroring | Yes |
| | Network Time | SNTP (RFC 2030) | Yes |
| | Backup | Configuration file upload/download | Yes |
| | Firmware upgrade | Firmware backup / upgrade, Dual firmware images | Yes |
| | IPv6 management | Telnet server/ICMP | Yes |
| | IP clustering | IP Clustering up to 36 switches | Yes |

TECHNICAL SPECIFICATIONS

| List | Detailed List | ES-3026 | ES-3026P | ES-3024G | ES-3024GP | ES-3052G | ES-3052GP |
|-------------|---|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
| Performance | Switching Fabric Capacity (Gbps) | 8.8 | 8.8 | 48 | 48 | 96 | 96 |
| | Packet Forwarding Throughput (Mpps) | 6.6 | 6.6 | 35.7 | 35.7 | 71.4 | 71.4 |
| | Flash Memory | 32M | 32M | 32M | 32M | 32M | 32M |
| | DRAM | 128M | 128M | 128M | 128M | 128M | 128M |
| | MAC Address Capacity | 8K | 8K | 8K | 8K | 16K | 16K |
| | MTU / Jumbo Frames support | 10K | 10K | 10K | 10K | 10K | 10K |
| | Auto-negotiation, Auto-MDI/MDIX | Yes | Yes | Yes | Yes | Yes | Yes |
| Port | 10/100Base-TX Ports per Unit | 24 | 24 | - | - | - | - |
| | 10/100/1000Base-T Ports per Unit | 2 | 2 | 24 | 24 | 48 | 48 |
| | Type of Built-in uplink ports | 2 pair combo RJ45/SFP | 2 pair combo RJ45/SFP | 4 shared SFP | 4 shared SFP | 4 SFP | 4 SFP |
| | Types of GBIC and SFP support | SFP (SX, LX, LH, FX) | SFP (SX, LX, LH, FX) | SFP (SX, LX, LH, FX) | SFP (SX, LX, LH, FX) | SFP (SX, LX, LH, FX) | SFP (SX, LX, LH, FX) |
| Management | Management Console port (Connector) | RJ45 | RJ45 | RJ45 | RJ45 | RJ45 | RJ45 |
| | Reset button (rear panel) | Yes | Yes | Yes | Yes | Yes | Yes |
| PoE | PoE Support on all ports based on 802.3af | | Yes | | Yes | | Yes |
| | PoE+ based on 802.3at | | Yes (port 1- 6) | | Yes (port 1- 6) | | Yes (All) |
| | Display of PoE Power in Use on Web Admin | | Yes | | Yes | | Yes |
| | Auto disable on the excess of total power | | Yes | | Yes | | Yes |
| | Dynamic Power Allocation | | Yes | | Yes | | Yes |
| | PoE Power budget | | 185W | | 185W | | 410W |
| Dimensions | 19" Rack Space [EIA Standard RU] | Yes | Yes | Yes | Yes | Yes | Yes |
| | Height [mm] | 44 | 44 | 44 | 44 | 44 | 44 |

TECHNICAL SPECIFICATIONS

| List | Detailed List | ES-3026 | ES-3026P | ES-3024G | ES-3024GP | ES-3052G | ES-3052GP |
|-----------------------------------|---------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Dimensions | Width (mm) | 440 | 440 | 440 | 440 | 440 | 440 |
| | Depth (mm) | 210 | 280 | 210 | 280 | 280 | 379 |
| | Weight (Kg) | 2.2 | 4.3 | 2.3 | 4.4 | 4.4 | 4.4 |
| Power | 100-240 VAC, 50/60Hz | Yes | Yes | Yes | Yes | Yes | Yes |
| | Max power consumption (Watts) | 17 | 245 | 23 | 252 | 65 | 530 |
| Environmental | Operating Temperature (° C) | 0 to 50 ° C | 0 to 50 ° C | 0 to 50 ° C | 0 to 50 ° C | 0 to 50 ° C | 0 to 50 ° C |
| | Storage Temperature (° C) | -40 to 70 ° C | -40 to 70 ° C | -40 to 70 ° C | -40 to 70 ° C | -40 to 70 ° C | -40 to 70 ° C |
| | Operating Humidity (non-condensing) | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% |
| | Storage Humidity (non-condensing) | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% | 10% to 90% |
| | Operating Altitude (Meters) | 4000m | 4000m | 4000m | 4000m | 4000m | 4000m |
| Certifications | EMC Compliance – FCC class A, CE | Yes | Yes | Yes | Yes | Yes | Yes |
| | Electromagnetic immunity, Korea [KCC] | Yes | Yes | Yes | Yes | Yes | Yes |
| | Safety Compliance – UL,CB | Yes | Yes | Yes | Yes | Yes | Yes |
| Environment Regulation Compliance | WEEE, RoHS | Yes | Yes | Yes | Yes | Yes | Yes |
| | PFOS | Yes | Yes | Yes | Yes | Yes | Yes |