iPECS
Your Communications Solution

Fully Managed Switch, iPECS Ethernet Switch 3000 Series

iPECS ES-3000 Switches are perfect for SMBs looking for solutions with the latest enterprise class switching features.

The iPECS ES-3000 Series are fully managed Layer 2 switches that support enterprise-class Layer 2 switching features including advanced QoS, security and simplified and intuitive management features allowing network administrators to build high performing robust network affordably.

The iPECS ES-3000 series comes in 8 models from Fast Ethernet to Gigabit Ethernet offering multiple choices to meet the demands of various high performance network environments. Administrators can extend the existing networks or newly build the reliable and high-performing networks using sophisticated features optimized for SMBs and supporting both aggregation and access-level solutions.

To reduce the growing complexity and often time-consuming process, Ericsson-LG offers an industry-unique solution called the iPECS UDM (Unified Device Manager). The iPECS UDM enables the network administrators to quickly and easily configure and manage the multiple iPECS switches across the network contributing to reducing the installation and operation time, efforts and expenses for SMBs with limited resources and budgets.

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

Smart Management
Managing the multiple iPECS switches from a single intuitive graphic user interface

Advanced Built-in Security
Advanced built-in security like 802.1x RADIUS authentication, filtering, ACL

VoIP and UC Friendly
Advanced L2/L3 QoS, Economical & Flexible POE via 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

ES-3026
- 24 ports 10/100Base-TX
- 2 ports Gigabit Combo (25~26)

ES-3026P
- 24 ports 10/100Base-TX
- 802.3af PoE for all ports (15.4W)

ES-3050
- 48 ports 10/100Base-TX
- 2 ports Gigabit Combo

ES-3050P
- 48 ports 10/100Base-TX
- 802.3at PoE+ for all ports (30W)

ES-3024G
- 24 ports 10/100/1000Base-T
- 4 ports shared SFPs (21~24)

ES-3024GP
- 24 ports 10/100/1000Base-T
- 802.3af PoE for all ports (15.4W)

ES-3052G
- 48 ports 10/100/1000Base-T
- 4 ports SFPs

ES-3052GP
- 48 ports 10/100/1000Base-T
- 802.3at PoE+ for all ports (30W)

KEY BENEFITS

Easy to Install

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

Smart Management using UDM

Ericsson-LG offers a unique management tool, the Unified Device Manager (iPECS UDM), which enables the management of all iPECS product lines from IP Telephony to Data Networks via a single management interface. 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 you save energy costs for your network. The iPECS ES-3000 series 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 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.

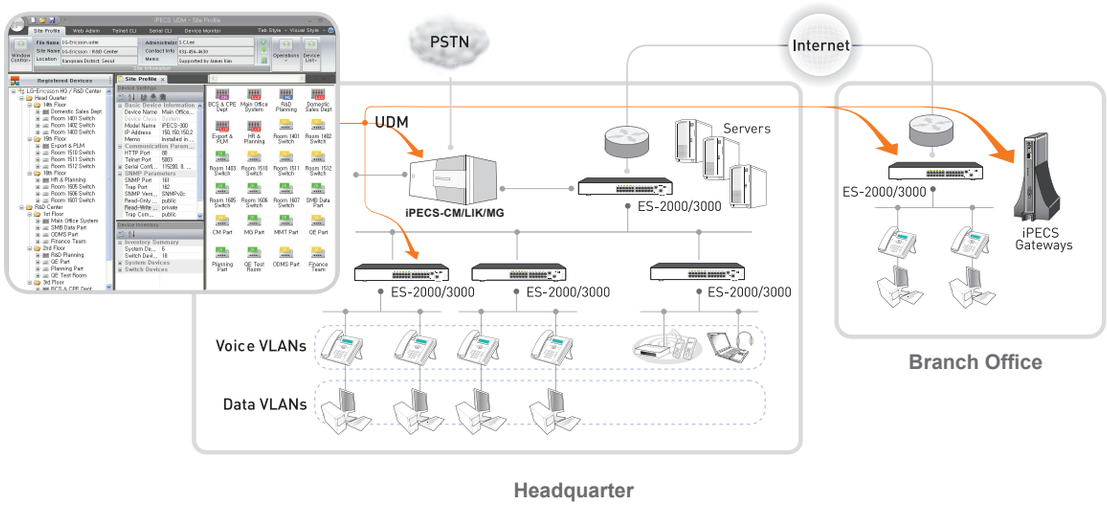
Secure Networking

The iPECS ES-3000 series support key security features like RADIUS authentication and authorization as well as multi-layer filtering. All these 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
		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 VLAN in MHMA mode	Yes
		User/password authentication (upto 5 users)	Yes
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-3050	ES-3050P	ES-3024G	ES-3024GP	ES-3052G	ES-3052GP
Performance	Switching Fabric Capacity (Gbps)	8.8	8.8	13.6	13.6	48	48	96	96
	Packet Forwarding Throughput (Mpps)	6.6	6.6	10.12	10.12	35.7	35.7	71.4	71.4
	Flash Memory	32M	32M	32M	32M	32M	32M	32M	32M
	DRAM	128M	128M	128M	128M	128M	128M	128M	128M
	MAC Address Capacity	8K	8K	16K	16K	8K	8K	16K	16K
	MTU / Jumbo Frames support	10K	10K	10K	10K	10K	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port	10/100Base-TX Ports per Unit	24	24	48	48	-	-	-	-
	10/100/1000Base-T Ports per Unit	2	2	2	2	24	24	48	48
	Type of Built-in uplink ports	2 pair combo RJ45/SFP	2 pair combo RJ45/SFP	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)	SFP (SX, LX, LH, FX)	SFP (SX, LX, LH, FX)
Management	Management Console port (Connector)	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45
	Reset button (rear panel)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PoE	PoE Support on all ports based on 802.3af		Yes		Yes		Yes		Yes
	PoE+ based on 802.3at		Yes (port 1 - 6)		Yes (All)		Yes (port 1 - 6)		Yes (All)
	Display of PoE Power in Use on Web Admin		Yes		Yes		Yes		Yes
	Auto disable on the excess of total power		Yes		Yes		Yes		Yes
	Dynamic Power Allocation		Yes		Yes		Yes		Yes
	PoE Power budget		185W		410W		185W		410W
Dimensions	19" Rack Space[EIA Standard RU]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Height [mm]	44	44	44	44	44	44	44	44
	Width (mm)	440	440	440	440	440	440	440	440
	Depth (mm)	210	280	280	379	210	280	280	379
	Weight (Kg)	2.2	4.3	4.2	6.8	2.3	4.4	4.4	4.4
Power	100-240 VAC, 50/60Hz	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Max power consumption (Watts)	17	245	42	530	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	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	-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%	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%	10% to 90%	10% to 90%
	Operating Altitude (Meters)	4000m	4000m	4000m	4000m	4000m	4000m	4000m	4000m
Certifications	EMC Compliance - FCC class A, CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Electromagnetic immunity, Korea [KCC]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Safety Compliance - UL, CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Environment Regulation Compliance	WEEE, RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	PFOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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iPECS is an Ericsson-LG Brand

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