

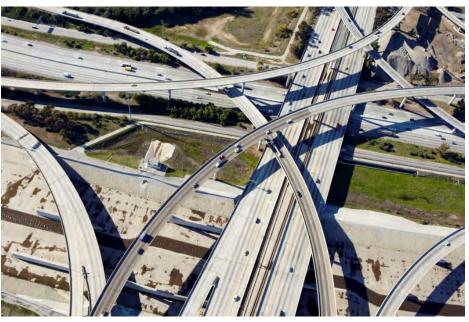
# IPECS ES-2000 SERIES ADVANCED SMART ETHERNET SWITCHES

The iPECS ES-2000 series of Layer 2 advanced Smart Switches optimized for businesses looking for reliable and cost-effective access layer switches. The ES-2000 has been designed to address needs of SMBs looking for balanced solutions between advanced features and affordability.

These simple-to-install, and easy-to-manage advanced smart switches, enable businesses to quickly and easily build their networks at cost effectively.

The iPECS ES-2000 series is available in 4 models from Fast Ethernet to Gigabit Ethernet, offering multiple choices to address various demands and network environments, flexibly and affordably. In addition, the iPECS ES-2000 series delivers key Layer 2 switching features, QoS, built-in security and Power over Ethernet (PoE and PoE+) options. The userfriendly, intuitive web-based GUI makes it easy to configure the iPECS ES-2000 for easy management of the communication network.

To reduce the complexity and often time-consuming configuration process, Ericsson-LG offers an industryunique solution, the iPECS Unified Device Manager (UDM)



UDM enables network administrators to quickly and easily manage multiple iPECS switches across the network and is compatible with other Link Layer Discovery Protocol (LLDP) platforms.

These Ericsson-LG switches incorporate the latest technologies such as Green Ethernet and PoE+. iPECS ES-2000 Smart Switches 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 lowpower devices.

#### **Highlights**

VoIP and UC Friendly Advanced L2 QoS, Economical and Flexible POE supporting 802.3af and 802.3at

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

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

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

Secure Networking Secured remote authentication and port security

Model	Ports	Speed	PoE	Uplink
ES-2026	24	Fast Ethernet	N/A	2 SFP/RJ-45 Combo port
ES-2026P	24	Fast Ethernet	PoE/PoE+	2 SFP/RJ-45 Combo port
ES-2024G	24	GigE	N/A	4 SFP
ES-2024GP	24	GigE	PoE/PoE+	4 SFP

### iPECS ES-2000 Series Configurations



## Key Benefits

#### Easy to Install

iPECS Ethernet Switches have plug-and-play capabilities such as auto-negotiation for speed and duplex mode, Auto-MDI/MDIX, and-at-a-glance tricolored status LED indicators on top of the ports. Its intuitive web-based user interface makes installation and administration easy.

#### Smart Management

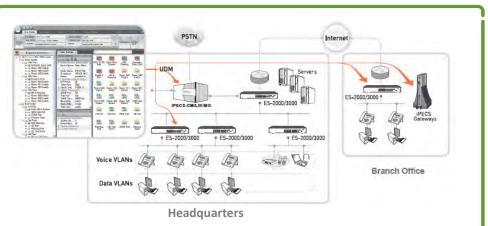
Ericsson-LG offers a unique management tool, the Unified Device Manager (iPECS UDM) which enables the management of all iPECS product lines and LLDP-compatible switches from IP Telephony to Data Networks via a single management interface. The iPECS UDM simplifies network administration and management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

#### Green Ethernet

The iPECS ES-2000G Gigabit Ethernet Switches incorporate the latest green Ethernet technology to help you save energy costs for your network. The ES-2000G 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.

## Converged network using the iPECS Ethernet Switch Solutions



Work with Ericsson, the world's mobile technology leader, to connect your enterprise today. For more information, visit <u>www.ericsson.com/us/connecting-business</u>.

#### 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 Switches are 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 standard. Therefore, businesses can flexibly and cost effectively connect standard and highpowered devices on a single Ericsson-LG PoE switch. In addition, PoE control and monitoring can be easily managed via the intuitive web user interface.

#### Secure Networking

The iPECS ES-2000 Ethernet Switches support key security features like RADIUS authentication and authorization as well as multi-layer filtering. All web management sessions are secured with HTTPS encryption.

## FEATURE SPECIFICATIONS

List	Feature	Specifications	ES-2000 Series	
	On one in a Trans Destante	802.1d : Spanning tree protocol (STP)	Yes	
	Spanning Tree Protocols	802.1w : Rapid Spanning Tree Protocol (RSTP)	Yes	
		Max number of groups	12	
	Link Aggregation (802.3ad)	Max number of members per group	8	
	()	Source and Destination MAC based Load balance	Yes	
L2 Switching		VLAN IDs	4,096	
	VLAN	Max Number of active VLANs per Switch	128	
		Port based VLAN	Yes	
	LLDP	Link ayer Discovery Protocol (802.1ab)	Yes	
	IGMP Snooping	Snoop IGMP packets per VLAN	Yes	
		Max Number of multicast groups	128	
		IGMP Snooping V1, 2, Querier	Yes	
		Q0S on L3 using TOS field of IP packet header	Yes	
		DSCP to 802.1p mapping	Yes	
	QoS	QoS on L2 layer using TCI field of VLAN header	Yes	
		Strict Priority Queuing	Yes	
Traffic Control		Weighted Round Robin Queuing	Yes	
		Voice VLAN / Auto QoS	Yes	
	ACL	L2/L3/L4 based ACL (Max number of ACL)	Yes (512)	
	Flow Control	Full/Half Duplex, Back pressure for half duplex	Yes	
	Rate Limiting / Shaping	Port, all traffic by bps	Yes	

# FEATURE SPECIFICATIONS (cont.)

List	Feature	Specifications	ES-2000 Series	
Tall October		Broadcast – packet rate control	Yes	
Traffic Control	Storm Control	Multicast – packet rate control	Yes	
		RADIUS / TACACS+ Authentication and Accounting	Yes	
Security	Authentication	Port based Authentication	Yes	
		MAC limitation per Port	Yes	
		MAC based port security (Static/Dynamic)	Yes	
	Access (Command	HTTP, HTTPS	Yes	
	Interface)	SNMP v1/v2c/v3, Trap (RFC 1215)	Yes	
	MIB	TCP/IP-based internets (RFG1213)	Yes	
		RMON v1/2 (RFC2819/RFC4502)	Yes	
		Received traffic	Yes	
Management	Port Mirroring	Transmit traffic	Yes	
Management		Received and Transmit traffic	Yes	
		N to 1 Mirror	Yes	
	Network Time Backup	SNTP	Yes	
		Configuration backup / restore	Yes	
	Firmware Upgrade	Firmware backup / upgrade	Yes	
	IP Clustering	IP Clustering up to 36 switches	Yes	

## **TECHNICAL SPECIFICATIONS**

List	Detailed Information	ES-2026	ES-2026P	ES-2024G	ES-2024GP
Performance	Switching Fabric Capacity (Gbps)	8.8	8.8	48	48
	Packet Forwarding Throughput (Mpps)	6.6Mpps	6.6Mpps	35.7Mpps	35.7Mpps
	Flash Memory	16M	16M	16M	16M
	DRAM	128M	128M	128M	128M
	MAC Address Capacity	8K	8K	8K	8K
	MTU / Jumbo Frames support	10K	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	Yes	Yes	Yes	Yes
	Reset button (real panel)	Yes	Yes	Yes	Yes
	MTBF (Hours)	560,000	150,000	158,000	146,000
Ports	Type of Service ports	10/100Base-TX	10/100Base-TX	10/100/1000Base- T	10/100/1000Base- T
	10/100Base-T Ports per Unit	24	24	-	-
	10/100/1000Base- T Ports Per Unit	-	-	24	24
	Type of Built-in Gigabit uplink ports	2 pair combo RJ45/SFP	2 pair combo RJ45/SFP	4 shared SFP	4 shared 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)
Management	Management Console ports (Connector)	RJ45	RJ45	RJ45	RJ45
Power Over Ethernet	POE Support on all ports based on 802.3af	N/A	Yes	N/A	Yes
	POE+ support based on 802.3at	N/A	Yes (port 1~6)	N/A	Yes (port 1~6)
	Display PoE Power in use at Web Admin	N/A	Yes	N/A	Yes
	Auto disable on the excess of total power	N/A	Yes	N/A	Yes
	Dynamic Power Allocation	N/A	Yes	N/A	Yes
	POE Power Budge	N/A	185W	N/A	185W

# TECHNICAL SPECIFICATIONS (Cont.)

List	Detailed Information	ES-2026	ES-2026P	ES-2024G	ES-2024GP
Dimensions	19" Rack Mount	Yes	Yes	Yes	Yes
	Height (mm)	44	44	44	44
	Width (mm)	440	440	440	440
	Depth (mm)	210	280	210	280
	Weight (Kg)	2.2	4.3	2.3	4.4
Power	100 ~ 240 VAC, 50/60Hz, 3Pin	Yes	Yes	Yes	Yes
	Max power consumption (Watts)	17	245	23	252
	Operating Temperature (°C)	0 to 50 ° C	0 to 50 ° C	0 to 50 °C	0 to 50 ° C
Environmental	Storage Temperature (°C)	-40 to 70 ° C			
	Operating Humidity (non- condensing)	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%
	Operating Altitude (Meters)	4000m	4000m	4000m	4000m
Certifications	EMC Compliance – FCC class A, CE	Yes	Yes	Yes	Yes
	Electromagnetic Immunity	Yes	Yes	Yes	Yes
	Safety Compliance - cUL	Yes	Yes	Yes	Yes
	Australia (C-Tick)	Yes	Yes	Yes	Yes
	Korea (KCC)	Yes	Yes	Yes	Yes
Environment Regulation Compliance	WEEE	Yes	Yes	Yes	Yes
	RoHS	Yes	Yes	Yes	Yes
	PFOS	Yes	Yes	Yes	Yes