iES24G

www.iS5com.com

Intelligent 24 Port Managed Gigabit Ethernet Switch

Features

- 24 Gigabit ports – 16 x 10/100/1000 Base T(X) or 16 x 100/1000 Base (X) SFP ports and 8 x 100/1000 Base (X) SFP ports
- Supports iRing (recovery time < 30ms with up to 250 Ethernet switches)
- MSTP/RSTP/STP (IEEE 802.1s/w/D) for Ethernet Redundancy
- Supports IPV6
- HTTPS/SSH protocol to enhance network security
- Supports SMTP client
- Supports IP-based bandwidth management
- Application-based QoS management
- Supports the Device Linking security function
- Supports DOS/DDOS auto prevention
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Supports SNMP v1/v2c/v3 & RMON & 802.1Q VLAN Network Management
- Supports ACL, 802.1x User Authentication for security
- Supports 9K Bytes Jumbo Frame
- Multiple notification for warning of unexpected event
- Web-based ,Telnet, Console (CLI), and Windows utility (iManage Software Suite) configuration
- Supports LLDP Protocol
- 19 inch rack mountable

56 BIT ENCRYPTION | RoHS Compliant | CE | FC

iS5 COMMUNICATIONS

SERVICES • SUPPORT • SECURITY • SOLUTIONS • SYSTEMS

Tel: +905-670-0004
Fax: +289-401-5206
Email: info@is5com.com
#3-7490 Pacific Circle, Mississauga, Ontario, L5T 2A3

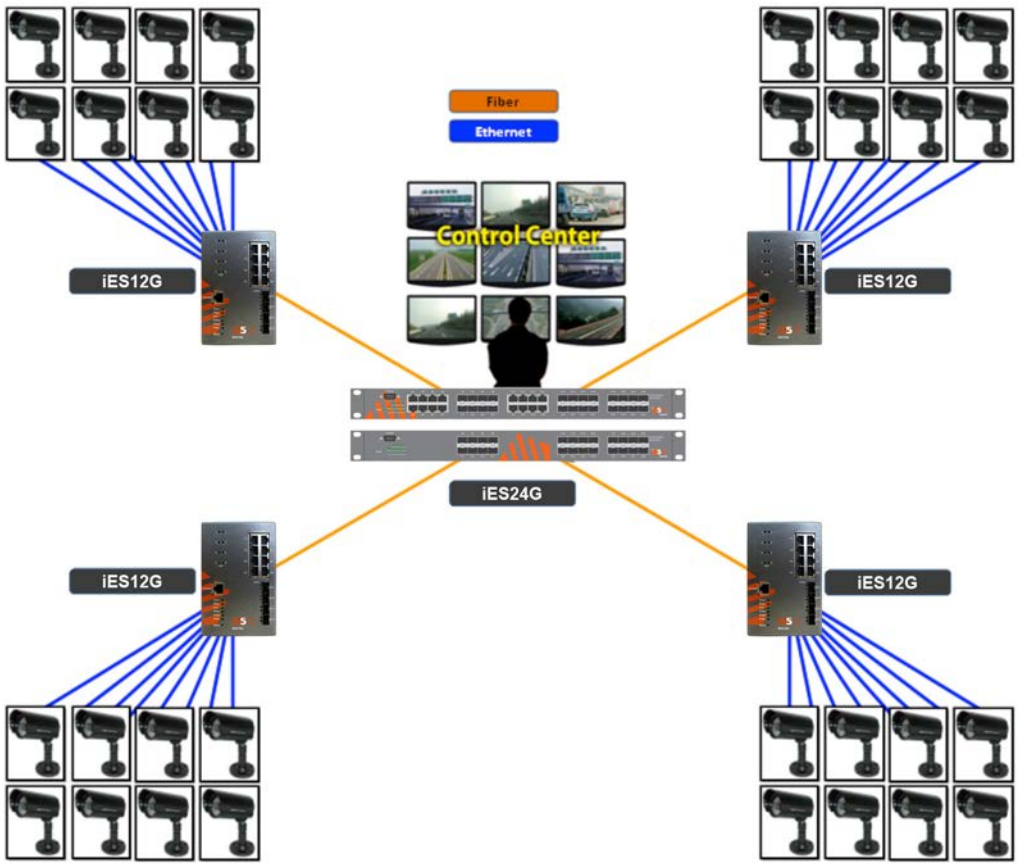
iS5com.com

Introduction

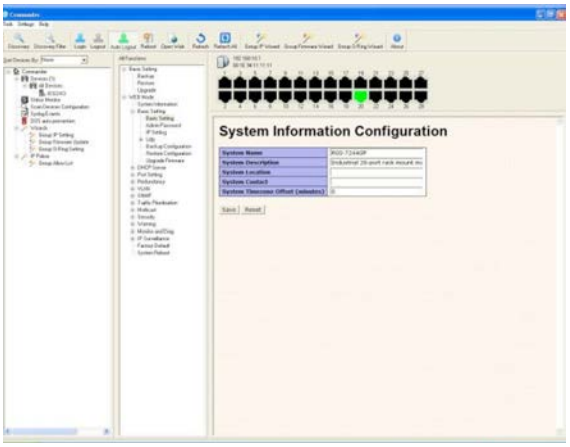
The iES24G managed Ethernet switch with Ethernet Redundancy protocols such as iRing (recovery time <30ms with up to 250 Ethernet switches), iBridge, and MSTP/RSTP/STP (IEEE 802.1s/w/D), the iES24G can protect your mission-critical applications from network interruptions or temporary malfunctions to restore connectivity using its fast recovery technology. The unique iBridge technology now provide a means to complement and interconnect with most third party proprietary ring technologies. The switch can be managed centrally and conveniently by our powerful windows utility called the iManage Software Suite. The product is made from galvanized steel and has a wide operating temperature range from -40°C to +85°C suitable for the harshest of environments without the use of fans.

iManage Software Suite

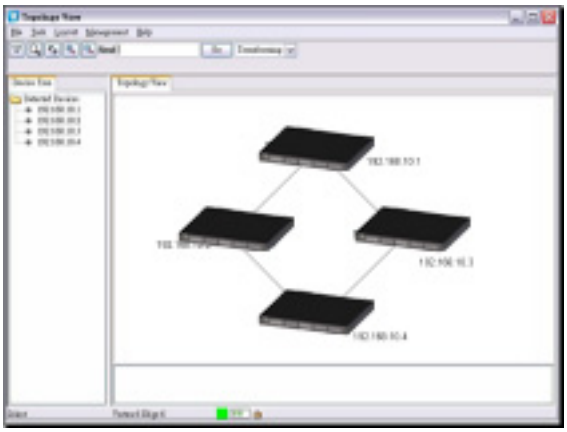
The iManage Software Suite provides users a way to conveniently manage and monitor all of the industrial Ethernet switches on the network.



Network connection



Monitoring and Configuration interface



Topology View

Specifications

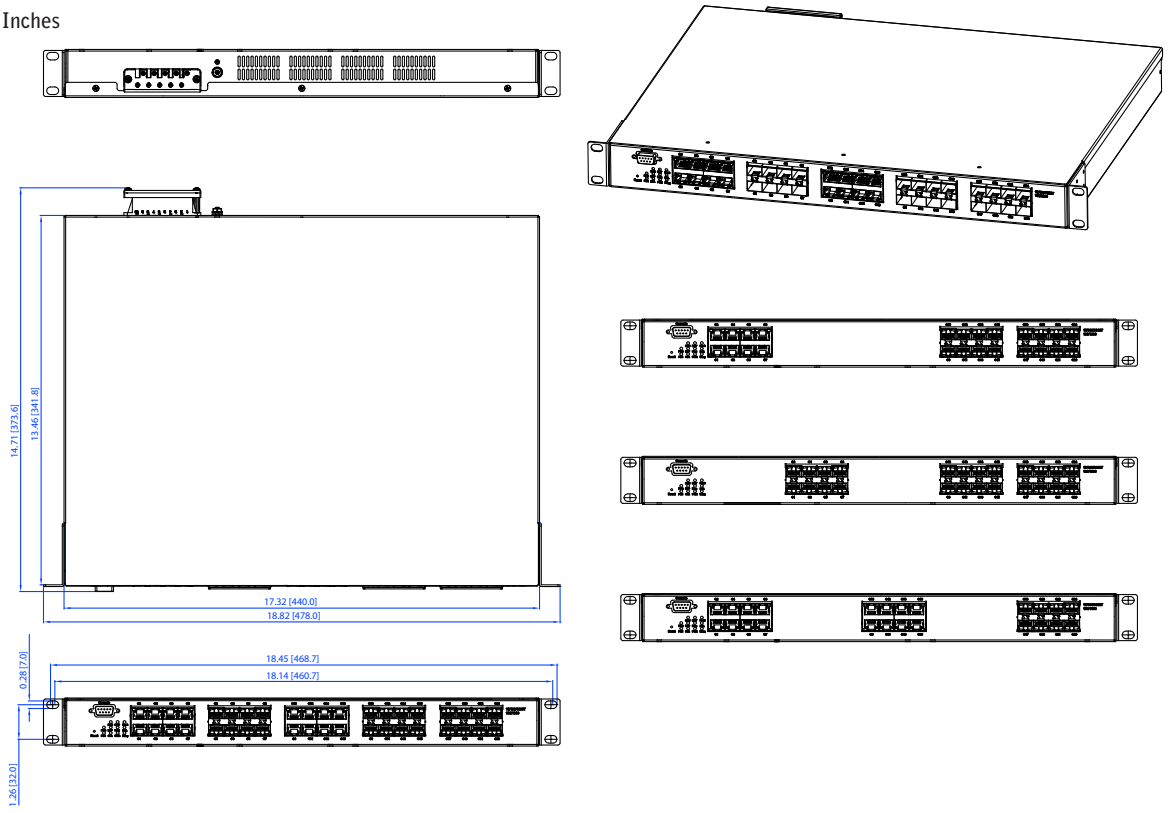
Model Number iES24G	
Physical Ports	
Gigabit ports with 10/100/1000Base-T(X) and/or 100/1000Base-X SFP ports	16
100/1000Base-X SFP ports	8
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T IEEE 802.z for 1000Base-X IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8k
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency: 7 us Switching bandwidth: 48Gbps Max. Number of Available VLANs: 256 IGMP multicast groups: 128 for each VLAN Port rate limiting: User Define
Jumbo Frame	Up to 9K Bytes
Security Features	Device Linking security feature Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1Q) to segregate and secure network traffic Radius centralized password management SNMPv3 encrypted authentication and access security Https / SSH enhance network security

Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (iRing) with recovery time less than 30ms over 250 Ethernet Switches TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping IP-based bandwidth management Application-based QoS management DOS/DDOS auto prevention Port configuration, status, statistics, monitoring, security DHCP Client/Server SMTP Client
Network Redundancy	iRing iBridge Fast Recovery Mode STP RSTP MSTP
Warning / Monitoring System	Relay output for fault event alarming Syslog server / client to record and view events SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232, DB9 connector with console cable. 115200bps, 8, N, 1
LED Indicators	
Power Indicator (PWR)	Green : Power indicator for AC and DC
Power-1 Indicator (PW1)	Green : Indicate Power-1 input
Power-2 Indicator (PW2)	Green : Indicate Power-2 input
System Ready Indicator (STA)	Green : Indicates that the system is ready. A blinking LED indicates that the firmware is being upgraded.
Ring Master Indicator (R.M.)	Green : Indicates that the system is operating in iRing Master mode
iRing Indicator (Ring)	Green : Indicates that the system is operating in iRing mode
Fault Indicator (Fault)	Amber : Indicates unexpected event occurred
System Running Indicator (RUN)	Green : System is operating continuously
Supervisor Login Indicator (RMT)	Green : System is accessed remotely
Reset To Default Running Indicator (DEF)	Green : System resets to default configuration
Ping Command To The Switch Indicator (Ping)	Green : System is processing "PING" request
10/100/1000Base-T(X) RJ45 Port Indicator	Left Green for 1000Mbps Link/Act indicator. Amber for 10/100Mbps Link/Act indicator Right Amber for full-duplex indicator
100/1000Base-X SFP Port Indicator	Green for port Link/Act.
Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Redundant Input power	12~36VDC, 36~72VDC, 88~300VDC/85-264VAC
Power consumption (Typ.)	18 Watts
Overload current protection	Present

Physical Characteristic	
Enclosure	IP-40 Galvanized Steel Housing
Dimension (W x D x H)	478 (W) x 373.6 (D) x 44 (H) mm (18.82 x 14.71 x 1.75 inch)
Weight (g)	4. Kg
Environmental	
Storage Temperature	-40°C to 85oC (-40°F to 185oF)
Operating Temperature	-40°C to 85°C
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	
Warranty	5 Years

Dimensions

All Dimensions are in Inches



Ordering Information

Base	Power Supply 1	Power Supply 2	Mount	Ethernet Port 1-8	Ethernet Port 9-16	Ethernet Port 17-24	Description
iES24G	LV	XX	R	16CX***	16CX***	8GSFP**	
iES24G	|	|	|	|	|	|	Core assembly and packaging
	XX	XX	|	|	|	|	None
	LV	LV	|	|	|	|	24VDC (18-36VDC)
	MV	MV	|	|	|	|	48 VDC (36-59VDC)
	HV	HV	|	|	|	|	88-300VDC or 85-264VAC
			R	|	|	|	19" Rack Mount
			P	|	|	|	Panel Mounting
			N	|	|	|	No Mounting Hardware
				XX	XX	|	None
				8GRJ45	8GRJ45	|	8 X 10/100/1000Base TX RJ45
				8GSFP**	8GSFP**	|	8 X 100/1000Base (X) SFP (Blank no SFP transceiver)
				16CX***	16CX***	|	8 X 10/100/1000Base TX RJ45 and 8 X 100/1000Base (X) (Blank no SFP transceiver)
						XX	None
						8GRJ45	8 X 10/100/1000Base TX RJ45
						8GSFP**	8 X 100/1000Base (X) SFP (Blank no SFP transceiver)

SFP** SEE ACCESSORIES FOR SFP TRANSCEIVER PRICING
*** Of the 16 ports only 8 Ports can be used in combination

**SFP's to be ordered separately.

SFP Module #	Description
SFP100-MM-2	SFP 100Mbps Multimode LC Transceiver 2km, 1310nm, -40C - +85C
SFP100-SM-30	SFP 100Mbps Singlemode LC Transceiver 30km, 1310nm, -40C - +85C
SFP100-SM-60	SFP 100Mbps Singlemode LC Transceiver 60km, 1310nm,-40C - +85C
SFP100-SM-100	SFP 100Mbps Singlemode LC Transceiver 100km, 1550nm,-40C - +85C
SFP100-SM-120	SFP 100Mbps Singlemode LC Transceiver 120km, 1550nm,-40C - +85C
SFP100BIDI1-SM-20	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 20km, TX1310 nm, RX1550nm, -40C - +85C
SFP100BIDI2-SM-20	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 20km, TX1550 nm, RX1310nm, -40C - +85C
SFP100BIDI1-SM-40	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1310 nm, RX1550nm, -40C - +85C
SFP100BIDI2-SM-40	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1550 nm, RX1310nm, -40C - +85C
SFP100BIDI1-SM-60	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 60km, TX1310 nm, RX1550nm, -40C - +85C
SFP100BIDI2-SM-60	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 60km, TX1550 nm, RX1310nm, -40C - +85C
SFP1000-MM-550	SFP 1Gbps Multimode LC Transceiver 500m, 850nm, -20C - +85C
SFP1000-MM-2	SFP 1Gbps Multimode LC Transceiver 2km, 1310nm, -40C - +85C
SFP1000-SM-10	SFP 1Gbps Singlemode LC Transceiver 10km, 1310nm, -40C - +85C
SFP1000-SM-20	SFP 1Gbps Singlemode LC Transceiver 20km, 1310nm, -40C - +85C
SFP1000-SM-30	SFP 1Gbps Singlemode LC Transceiver 30km, 1310nm, -40C - +85C
SFP1000-SM-40	SFP 1Gbps Singlemode LC Transceiver 40km, 1310nm, -40C - +85C
SFP1000-SM-50	SFP 1Gbps Singlemode LC Transceiver 50km, 1550nm, -40C - +85C
SFP1000-SM-70	SFP 1Gbps Singlemode LC Transceiver 70km, 1550nm, -40C - +85C
SFP1000-SM-8-	SFP 1Gbps Singlemode LC Transceiver 80km, 1550nm, -40C - +85C
SFP1000BIDI1-SM-10	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 10km, TX1310 nm, RX1550nm, -40C - +85C
SFP1000BID2-SM-10	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 10km, TX1550 nm, RX1310nm, -40C - +85C
SFP1000BIDI1-SM-20	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 20km, TX1310 nm, RX1550nm, -40C - +85C
SFP1000BID2-SM-20	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 20km, TX1550 nm, RX1310nm, -40C - +85C
SFP1000BIDI1-SM-40	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 40km, TX1310 nm, RX1550nm, -40C - +85C
SFP1000BID2-SM-40	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 40km, TX1550 nm, RX1310nm, -40C - +85C
SFP1000BIDI1-SM-60	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 60km, TX1310 nm, RX1550nm, -40C - +85C
SFP1000BID2-SM-60	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 60km, TX1550 nm, RX1310nm, -40C - +85C
SFP1000BIDI1-SM-80	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 80km, TX1310 nm, RX1550nm, -40C - +85C
SFP1000BID2-SM-80	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 80km, TX1550 nm, RX1310nm, -40C - +85C