

iES8G

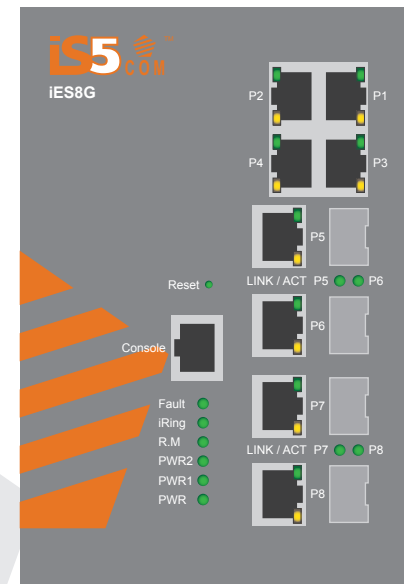


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Intelligent 8 Port Managed Gigabit Ethernet Switch

Features

- Rapid Ring Recovery: iRing (recovery time < 30ms up to 250 ethernet switches)
- iBridge is a unique feature that supports third party ring technologies
- STP/RSTP/MSTP supported
- Supports PTP Client (Precision Time Protocol) clock synchronization
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Port Trunking for easy of bandwidth management
- SNMP v1/v2c/v3 support for secure network management
- RMON for traffic monitoring
- Supports DDM (Digital Diagnostic Monitoring) function for SFP modules
- Supports LLDP (Link Layer Discovery Protocol)
- Event notifications via Syslog, Email, SNMP trap, and Relay Output
- Port lock to prevent access from unauthorized MAC address
- iManage Software Suite support centralized management and configurable by Web Browser, Telnet, or Console (CLI)
- IP-40 Galvanized Steel housing
- DIN-Rail and wall mounting
- 4x10/100/1000 Base T(X) Ports or 4x100/1000 Base (X) SFP Ports



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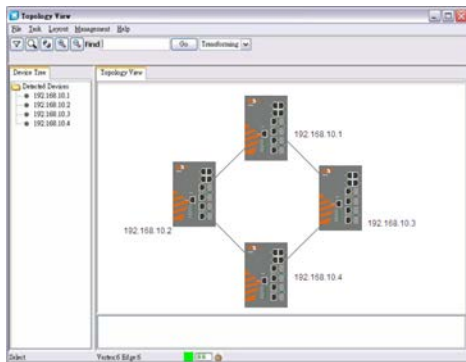


Introduction

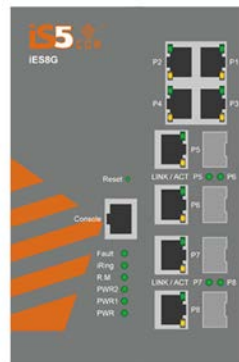
The iES8G is a managed Ethernet switch with Ethernet Redundancy protocols such as iRing (recovery time <30ms up to 250 ethernet switches), iBridge and MSTP/RSTP/STP (IEEE 802.1s/w/D). The iES8G can protect your mission-critical applications from network interruptions or temporary malfunctions to restore connectivity with its fast recovery technology. The iBridge technology provides a means to complement and interconnect with most third party proprietary ring technologies. The iES8G 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 to +85oC suitable for the harshest of environments without the use of fans.

iManage Software Suite

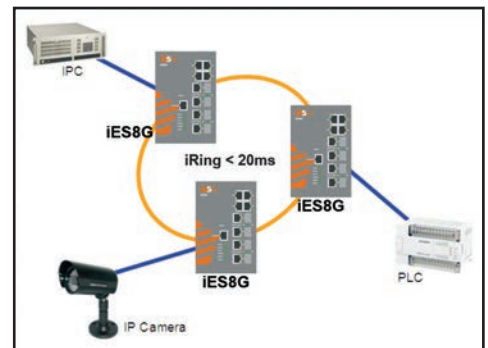
The iManage Software Suite provides users a way to conveniently manage and monitor all of the industrial Ethernet switches on the network.



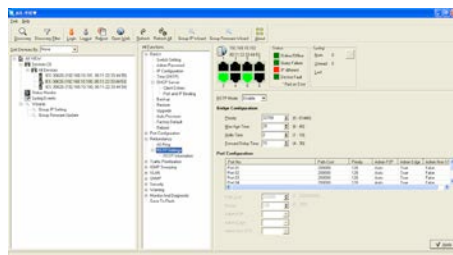
Network connection



DDM connection



Topology View



Monitoring and Configuration interface



Specifications

Model Number iES8G	
Physical Ports	
10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX	4
Gigabit Combo Port with 10/100/1000Base-T(X) or 100/1000Base-X SFP Port	4- Base-T(X) or 4- Base (X) SFP
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging 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	8192 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency: 7 us Switching bandwidth: 16Gbps Max. Number of Available VLANs: 4096 IGMP multicast groups: 1024 Port rate limiting: User Define
Security Features	Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1Q) to segregate and secure network traffic Supports Q-in-Q VLAN for performance & security to expand the VLAN space Radius centralized password management SNMP V1/V2c/V3 encrypted authentication and access security
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (iRing) with recovery time less than 30ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping for multicast filtering Port configuration, status, statistics, monitoring, security SNTP for synchronizing of clocks over network Support PTP Client (Precision Time Protocol) clock synchronization DHCP Server / Client support Port Trunk support MVR (Multicast VLAN Registration) support
Network Redundancy	iRing, MSTP
Warning / Monitoring System	Relay output for fault event alarming Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. 9600bps, 8, N, 1

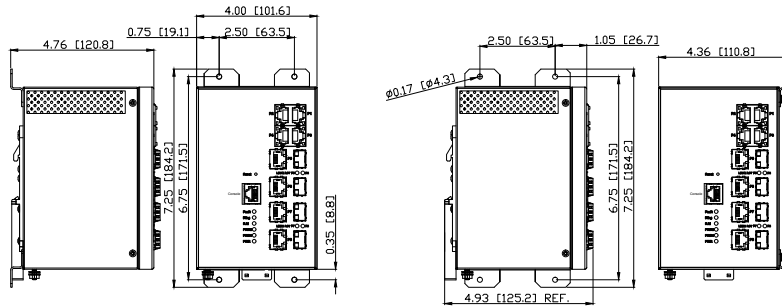
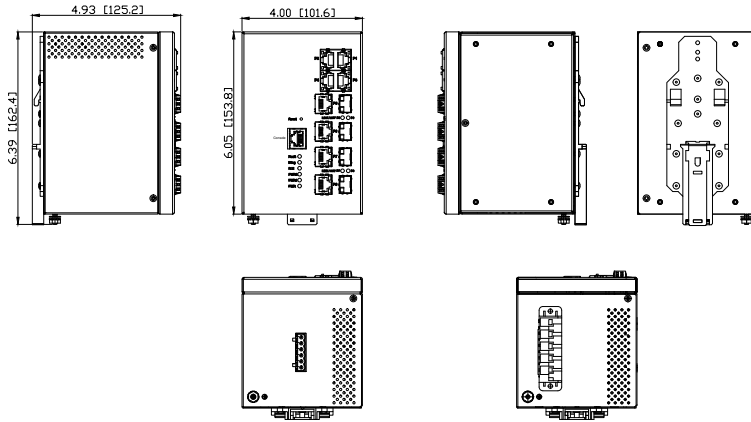


LED Indicators	
Power Indicator	Green : Power LED x 3
R.M. Indicator	Green : Indicate system operated in iRing Master mode
Ring Indicator	Green : Indicate system operated in iRing mode
Fault Indicator	Amber : Indicate unexpected event occurred
10/100/1000Base-T(X) RJ45 port indicator	Green for port Link/Act. Amber for 100Mbps 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	Dual DC inputs 10 to 48VDC, Dual DC Inputs 36-72VDC, or Single input universal supply 120-370VDC or 85-264VAC with a single 10-48VDC Backup.
Power Consumption (Typ.)	10 Watt
Overload Current Protection	Present
Reverse Polarity Protection	Internal
Physical Characteristic	
Enclosure	IP-40 Galvanized Steel
Dimension (W x D x H)	74.3(W)x109.2(D)x153.6(H) mm (2.93 x 4.3 x 6.05 inch)
Weight (g)	1kg
Environmental	
Storage Temperature	-40 to 85oC (-40 to 185oF)
Operating Temperature	-40 to 85oC (-40 to 185oF)
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



PANEL MOUNT
BRACKET INSTALLED AT REAR

PANEL MOUNT
BRACKET INSTALLED AT SIDE

Ordering Information

Base	Power Supply	Mount	Ethernet Port 1-4	Ethernet Port 5	Ethernet Port 6	Ethernet Port 7	Ethernet Port 8	Description
iES8G	HV	D	4RJ45	1RJ45	1SFP**	1RJ45	XX	
iES8G								Core assembly and packaging
	LV							Dual Input (10-48VDC)
	MV							Dual Input (36-72VDC)
	HV							Single Input 120-370VDC or 85-264VAC with Single 10-48VDC Backup
		D						DIN Rail Mounting
		P						Panel Mounting
		N						No Mounting Hardware
				XX	XX	XX	XX	None
			4RJ45	1RJ45	1RJ45	1RJ45	1RJ45	10/100/1000Base TX RJ45
				1SFP**	1SFP**	1SFP**	1SFP**	1000SX SFP (Blank no optical transceiver)

Example Order Code: iES8G-MV-D-4RJ45-1RJ45-1SFP**-1RJ45-1SFP**-C1-F3.07

Description: 8 Port Gigabit Switch, Dual Input 10-48VDC, DIN Rail Mount, 6-10/100/1000Base TX Ports, 2-10/100/1000Base-X SFP Ports, Conformal Coating, Firmware version 3.07
 C1 – Add for conformal coating
 FW – Leave blank for latest firmware



**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
SFP1000BIDI2-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
SFP1000BIDI2-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
SFP1000BIDI2-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
SFP1000BIDI2-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
SFP1000BIDI2-SM-80	SFP 1Gbps Bi-Directional Singlemode LC Transceiver 80km, TX1550 nm, RX1310nm, -40C - +85C