iES8

www.iS5com.com

Intelligent 8 Port Managed Ethernet Switch

Features

- Rapid Network 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 Auto Negotiation Speed
- 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 LLDP (Link Layer Discovery Protocol)
- Port lock to prevent access from unauthorized MAC addresses
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- iManage Software Suite supports centralized management and configuration by Web Browser, Telnet, or Console (CLI)
- Rigid IP-40 Galvanized Steel Housing
- DIN-Rail and wall mounting
- 6x10/100 Base T(X) or 2x10/100 Base (X) SC, ST, or RJ45 Optional Ports

56 BIT ENCRYPTION

RoHS Compliant

CE FC

iS5 COMMUNICATIONS

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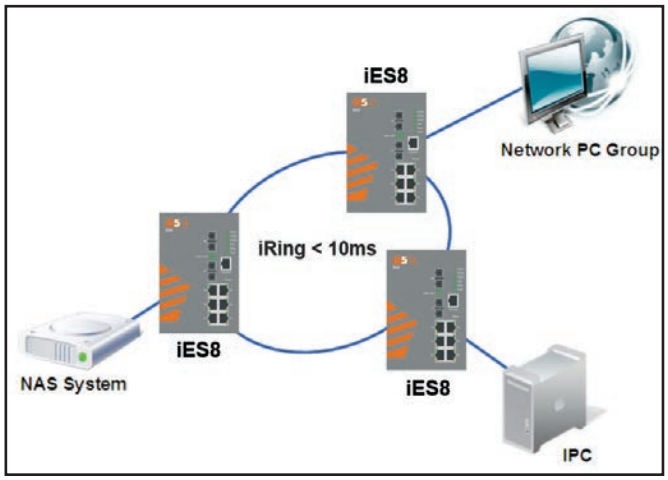
Introduction

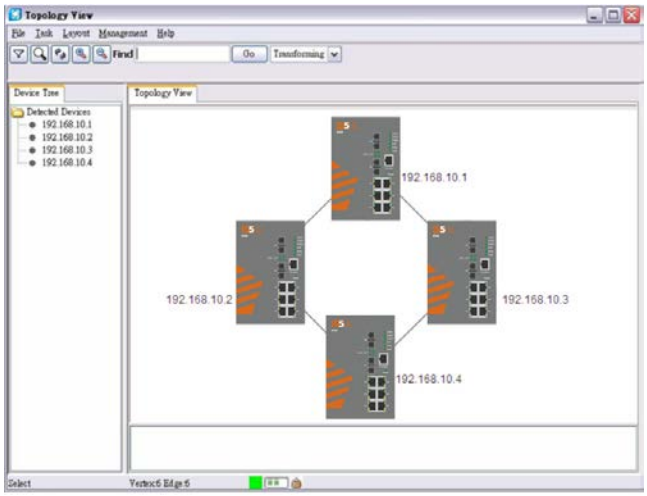
The iES8 switch is a managed Ethernet switch with Ethernet Redundancy protocols such as iRing (recovery time <30ms up to 250 Ethernet switches), iBridge, and MSTP/RSTP/STP (IEEE 802.1s/w/D). The iES8 can protect your mission-critical applications from network interruptions or temporary malfunctions to 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 iES8 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

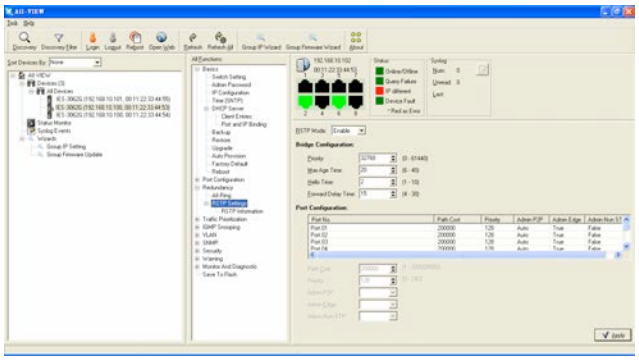
The iManage Software Suite provides users a way to conveniently manage and monitor all of the industrial Ethernet switches on the network.

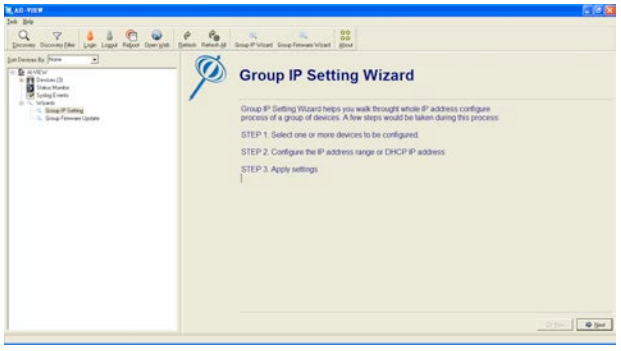


Network connection



Topology View





Monitoring and Configuration interface

Specifications

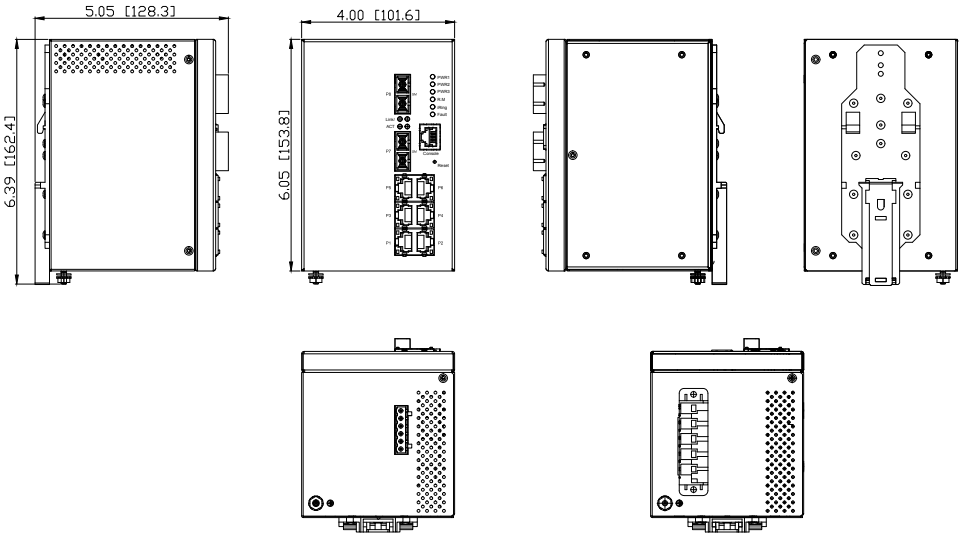
Model Number iES8				
Physical Ports				
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX		6	6	6
100Base-T(X) Ports in RJ45 Auto MDI/MDIX		2		
Fiber Port Specification	Fiber Ports Number		2	2
	Fiber Ports Standard		100Base-FX	100Base-FX
	Fiber Mode		Multi-mode	Single-mode
	Fiber Diameter (μm)		62.5/125 μm 50/125 μm	9/125 μm
	Fiber Optical Connector		SC or ST	SC or ST
	Typical Distance (Km)		2 Km	30 Km
	Wavelength (nm)		1310 nm	1310 nm
	Max. Output Optical Power (dbm)		-14 dbm	-8 dbm
	Min. Output Optical Power (dbm)		-23.5 dbm	-15 dbm
	Max. Input Optical Power (Saturation)		0 dbm	0 dbm
	Min. Input Optical Power (Sensitivity)		-31 dbm	-34 dbm
	Link Budget (db)		7.5 db	19 db
Technology				
Ethernet Standards		IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.3x for Flow control 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		
MAC Table		8192 MAC addresses		
Priority Queues		4		
Processing		Store-and-Forward		
Switch Properties		Switching latency: 7 us Switching bandwidth: 5.2Gbps 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 SNMPV1/V2c/V3 encrypted authentication and access security		

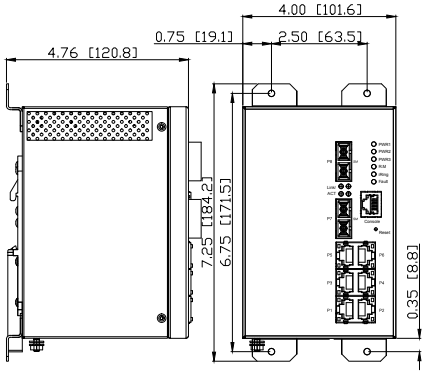
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (iRing) with recovery time less than 30ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping for multicast filtering Port configuration, 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, iBridge, STP, RSTP, 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. Baud rate setting: 9600bps, 8, N, 1
LED Indicators	
Power Indicator	Green : Power LED x 2
R.M. Indicator	Green : Indicate system operated in iRing Master mode
iRing Indicator	Green : Indicate system operated in iRing mode
Fault Indicator	Amber : Indicate unexpected event occurred
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision
10/100-T(X) / Fiber Port Indicator	Green for port Link/Act. Amber for Link
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.)	9 Watt
Overload Current Protection	Present
Reverse Polarity Protection	Internal
Physical Characteristic	
Enclosure	IP-40 Galvanized Steel
Dimension (W x D x H)	52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.)
Weight (g)	1 kg
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, UL508 (E331061)
Warranty	
Warranty	5 Years

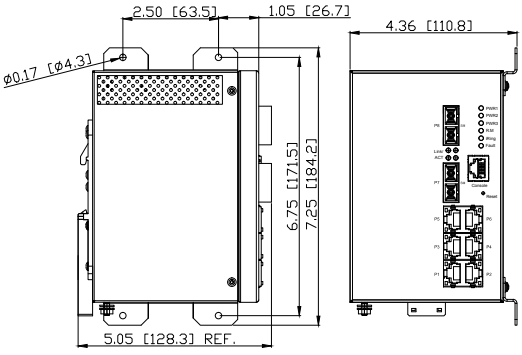
Dimensions

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 1-6	Ethernet Port7	Ethernet Port 8	Description
iES8	MV	D	6RJ45	1SSC30	1SSC30	
iES8	|	|	|	|	|	Core assembly and packaging
	LV	|	|	|	|	Dual Input (10-48VDC)
	MV	|	|	|	|	Dual Input (36-72VDC)
	HV	|	|	|	|	Single Input 88-370VDC or 85-264VAC with Single 10-48VDC Backup
		D	|	|	|	DIN Rail Mounting
		P	|	|	|	Panel Mounting
		N	|	|	|	No Mounting Hardware
			|	XX	XX	None
			6RJ45	1RJ45	1RJ45	10/100BaseTX RJ45
				1MMSC	1MMSC	100FX Multimode SC, 2Km
				1MMST	1MMST	100FX Multimode ST, 2Km
				1SST30	1SST30	100FX Singlemode ST, Standard 30km
				1SSC30	1SSC30	100FX Singlemode SC, Standard 30km
				1SSC50	1SSC50	100FX Singlemode SC, Intermediate Reach 50km
				1SSC90	1SSC90	100FX Singlemode SC, Long Reach 90km

Example Order Code: iES8-MV-D-6RJ45-1SSC30-1SSC30-C1-F3.07
Description: 8 Port Switch, Dual Input 36-120VDC, DIN Rail Mount, 6-10/100Base TX Ports, 2-100Base FX Singlemode SC, 30Km Ports, Conformal Coating, Firmware version 3.07
C1 – Add for conformal coating
FW – Leave blank for latest firmware

Note: If Ports 7 and 8 are selected, connector type RJ45 cannot be combined with Fiber connector types SC or ST.