

iES18G

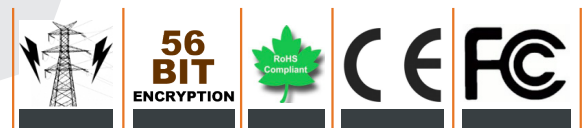
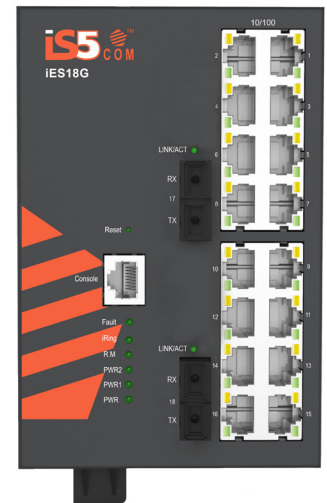


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Industrial 18 Port Managed Ethernet Switch

Features

- Up to 16x10/100Base (TX), and 2 x 100Base (X) or 2 x 1000Base (X) Ports
- Fastest Redundant Ethernet Ring : iRing (recovery time <30ms with up to 250 Ethernet Switches)
- iBridge supports other vendors' ring technology in open architecture
- STP/RSTP/MSTP supported
- Supports PTP Client (Precision Time Protocol) clock synchronization
- IGMP v2/v3 (IGMP snooping for support) filtering multicast traffic
- Port Trunking for easy of bandwidth management
- SNMP V1/V2c/V3 support for secured network management
- RMON for traffic monitoring
- Supports LLDP protocol
- MRP: Media Redundancy Protocol (MRP) IEC 62439-2
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- Port lock to prevent access from unauthorized MAC address
- Windows utility (iManage Software Suite) supporting centralized management and configurable by Web-based, Telnet, and Console (CLI)
- Supports two Gigabit combo ports
- Rigid IP-40 housing design
- DIN-Rail and wall mount



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Introduction

The iES18G 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) 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 provides a means to complement and interconnect with most third party proprietary ring technologies. The switch can be managed centralized and convenient by a powerful windows utility called the iManage Software Suite. The product is made from galvanized steel and has a wide operating temperature from -40°C to 85°C suitable for the harshest of environments without the use of fans.

Specifications

Model Number iES18G	
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	16
10/100/1000Base T(X), or 100Base (X), or 1000Base (X)	2
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-TX 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 : 9 μ s Switching bandwidth : 7.2Gbps 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 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 v2/v3 (IGMP snooping support) for multicast filtering Port configuration, status, statistics, monitoring, security SNMP 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

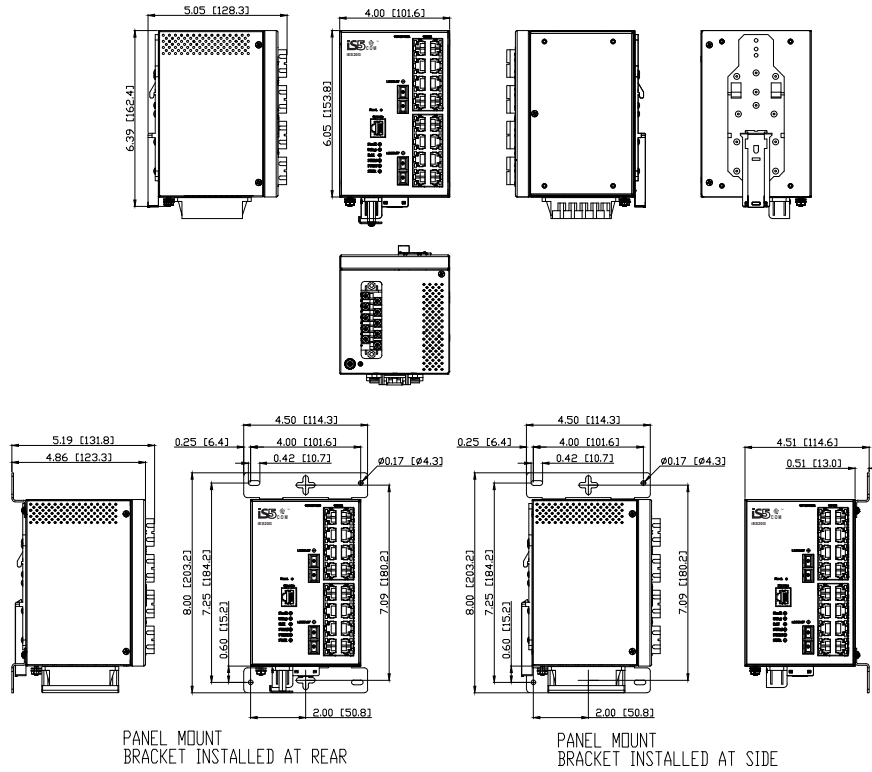


Network Redundancy	iRing iBridge STP RSTP MSTP
Warning / Monitoring System	Relay output for fault event alarming Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. 9600bps, 8, N, 1
Fault Contact	
Relay	Relay output capacity: 1A at 24VDC
Power	
Redundant Input Power	Dual DC inputs 10 to 48VDC, Dual DC Inputs 36-72VDC, or Single input universal supply 88-370VDC or 85-264VAC with a single 10-48VDC Backup
Power Consumption (Typ.)	12 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-40
Dimension (W x D x H)	96.4(W)x108.5(D)x154(H) mm (3.8 x 4.27 x 6.06 inch)
Weight (g)	1220 g
Environmental	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Operating Temperature	-40°C to 85°C (-40°F to 158°F)
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	Mount	Ethernet Port 1-8	Ethernet Port 9-16	Ethernet Port 17&18	Description
iES18G	HV	D	8RJ45	8RJ45	2GSSC40	
iES18G						Managed core assembly and packaging
uES18G						Unmanaged 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
			8RJ45	8RJ45		8 X 10/100Base TX RJ45
					XX	None
					2GRJ45	2 x 10/100/1000Base TX RJ45



					2GSFP	2 x 1000Base (X) SFP (Blank no SFP transceiver**)
					2MMSC	2 x 100FX Multimode SC, 1310nm, 2Km
					2MMST	2 x 100FX Multimode ST, 1310nm, 2Km
					2SSC15	2 x 100FX Singlemode SC, 1310nm, 15km
					2SST15	2 x 100FX Singlemode ST, 1310nm, 15km
					2SSC40	2 x 100FX Singlemode SC, 1310nm, 40km
					2SST40	2 x 100FX Singlemode ST, 1310nm, 40km
					2SSC60	2 x 100FX Singlemode SC, 1310nm, 60km
					2SST60	2 x 100FX Singlemode ST, 1310nm, 60km
					2SSC80	2 x 100FX Singlemode SC, 1550nm, 80km
					2SST80	2 x 100FX Singlemode ST, 1550nm, 80km
					2SSC100	2 x 100FX Singlemode SC, 1550nm, 100km
					2SST100	2 x 100FX Singlemode SC, 1550nm, 100km
					2GMMSC	2 x 1000 SX Multimode ST, 850nm, 550m
					2GMMST	2 x 1000 SX Multimode SC, 850nm, 550m
					2GSST10	2 x 1000 LX Singlemode ST, 1310nm, 10km
					2GSSC10	2 x 1000 LX Singlemode SC, 1310nm, 10km
					2GSST40	2 x 1000 LX Singlemode ST, 1310nm, 40km
					2GSSC40	2 x 1000 LX Singlemode SC, 1310nm, 40km
					2GSST70	2 x 1000 LX Singlemode ST, 1550nm, 70km
					2GSSC70	2 x 1000 LX Singlemode SC, 1550nm, 70km

Example Order Code: iES18G-HV-D-8RJ45-8RJ45-2GSSC40-C1-F3.07

Description: 18 Port Gigabit Switch, Single Input 88-370VDC or 85-264VAC with Single 10-48VDC Backup Power Supply,
 DIN Rail Mount, 16x10/100Base TX Ports, 2x1000 LX Singlemode SC, 40Km Ports, Conformal Coating, Firmware version 3.07
 C1 – Add for conformal coating
 FW – Leave blank for latest firmware



SFP** 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