

# iES10G-S

**Intelligent 10 Port Managed Gigabit Ethernet Switch**

## Product Overview



The iES10G-S is an intelligent 10 Port managed Ethernet switch with 7 x 10/100Base-T(X) RJ45 ports, up to 3 x 10/100/1000Base-T(X) RJ45 ports, up to 3 Combo 10/100/1000Base-T(X) RJ45 ports, and up to 2 x 100/1000Base-X SFP ports.

The iES10G-S provides redundancy support through functions such as STP/RSTP/MSTP assuring protection of all mission critical network applications. iES10G-S can be managed via the Web UI, iManage Software Suite, Telnet, and Console (CLI) / SSH v2.

The switch is made of IP-40 galvanized steel and has a wide operating temperature range from -40°C to +85°C, which is suitable for the harshest of environments without the use of fans.



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# Features

**Table 1. Features**

Feature	
<b>Supports:</b>	<ul style="list-style-type: none"><li>• STP / RSTP / MSTP</li><li>• LLDP (Link Layer Discovery Protocol)</li><li>• Modbus TCP</li><li>• VLAN Priority—supports priority-tagged frames to be received by specific IEDs</li><li>• HTTPS / SSH v2</li><li>• SNTP for synchronizing the switch's clock</li></ul>
IGMP v2 / v3 (IGMP Snooping)	
SNMP v1 / v2c / v3	
RADIUS for 802.1x authentication TACACS+ for user login authentication	
Supports DDM (Digital Diagnostic Monitoring) function for SFP modules	
Multiple alarm notification methods	
Configurable by Web UI, Telnet, Console(CLI), iManage software running on Windows 10, NT /2000/ XP/2003/VISTA/7	
DIN rail and panel mount	



## Product Specifications

**Table 2. Technical Specification**

Description	Specification
<b>10/100Base-T(X) RJ45</b>	7
<b>1 X 10/100/1000Base-T(X) RJ45</b>	Up to 3
<b>Combo*** 10/100/1000Base-T(X) RJ45 and 100/1000Base-X</b>	Up to 3
<b>100/1000Base-X SFP</b>	Up to 2
<b>RS-232 Serial Console Port</b>	RS-232 in RJ45 connector with console cable: 9600 bps, 8, N, 1
<b>Warning / Monitoring System</b>	Relay output for fault event alarming 2 alarm warning methods for system events supported: <ul style="list-style-type: none"> <li>• SYSLOG with server / client structure; recording and viewing events in the System Event Log</li> <li>• SMTP for notification via email</li> </ul> Event selection per port
<b>Alarm</b>	Relay output to carry capacity of 1 A at 24 VDC
Technology	
<b>MAC Table</b>	8K
<b>Priority Queues</b>	4
<b>Processing</b>	Store-and-Forward
<b>Switch Properties</b>	Switching latency: 7 $\mu$ s Switching bandwidth: 7.4 Gbps Max. Number of Available VLANs: 4096 IGMP multicast groups: 32 Port rate limiting: User Defined
<b>Security Features</b>	<ul style="list-style-type: none"> <li>• STP/RSTP/MSTP</li> <li>• RADIUS for 802.1x authentication</li> <li>• TACACS+ for user login authentication</li> <li>• Port based network access control (NAS) 802.1x</li> <li>• VLAN (802.1 Q) for segregation and securing network traffic enabled by GVRP</li> <li>• SNMPv3 authentication and privacy encryption</li> <li>• Management Security</li> <li>• Port security and MAC Blacklist</li> <li>• IP Guard</li> <li>• HTTPS / SSH v2</li> <li>• Web and CLI authentication and authorization</li> </ul>



Description	Specification
<b>Software Features</b>	<ul style="list-style-type: none"><li>• Web or CLI based Management (RS-232 Serial Console or Telnet / SSH v2)</li><li>• HTTPS</li><li>• DHCP Server /Client / Relay</li><li>• VLAN—Port-based (untagged) and 802.1Q (tagged)</li><li>• Supports SNMPv1/v2/v3</li><li>• Traffic Prioritization—QoS, Port-based Priority, COS/802.1p, TOS/DSCP</li><li>• Multicast traffic—IGMP Snooping (IGMP v2 / v3), MVR, Static Multicast Filtering</li><li>• Warnings (SYSLOG and SMTP), Fault Alarm (power and ports failure), and Event Selection</li><li>• Monitoring and Diagnostics—MAC Table and Port Statistics, Counters, and Monitoring, System Event Log, Traffic Monitoring, and Ping</li><li>• SNTP for synchronizing of clocks over network</li></ul>
<b>Network Redundancy</b>	<ul style="list-style-type: none"><li>• STP/ RSTP/ MSTP, Fast Recovery, Dual Port Recovery, and Ring</li></ul>
<b>Physical Characteristics</b>	
<b>Enclosure</b>	IP-40 Galvanized Steel
<b>Dimensions (W x D x H)</b>	114 (W) x 154 (D) x 203 (H) mm (4.50 x 6.08 x 8.00 inches) panel mount 162 (W) x 151 (D) x 191 (H) mm (2.56 x 5.93 x 7.53 inches) DIN rail mount
<b>Weight (g)</b>	~ 1000 g
<b>Power</b>	
<b>Input Power</b>	Dual Input 10-48VDC, Single Input 36-75VDCwith Single 10-48VDC Backup, or Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup
<b>Power Consumption (Typ.)</b>	12 Watts
<b>Overload Current Protection</b>	Present
<b>Reverse Polarity Protection</b>	Internal

**Table 3. Compliance Specifications**

Type	Standards
<b>Electromagnetic Emissions</b>	FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN55011, EN50121-4)
<b>Electromagnetic Immunity</b>	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
<b>Safety Standards</b>	EN60950-1
<b>Operating Environment</b>	-40°C to +85°C (-40° to 185°F) (no fans) EN 60068-2-21
<b>Storage Environment</b>	-40°C to +85°C (-40° to 185°F) EN 60068-2-14
<b>Operating Humidity</b>	5% to 95% Non-condensing EN 60068-2-30
<b>Shock</b>	IEC60068-2-27
<b>Free Fall</b>	IEC60068-2-32
<b>Vibration</b>	IEC60068-2-6
<b>Warranty</b>	5 years

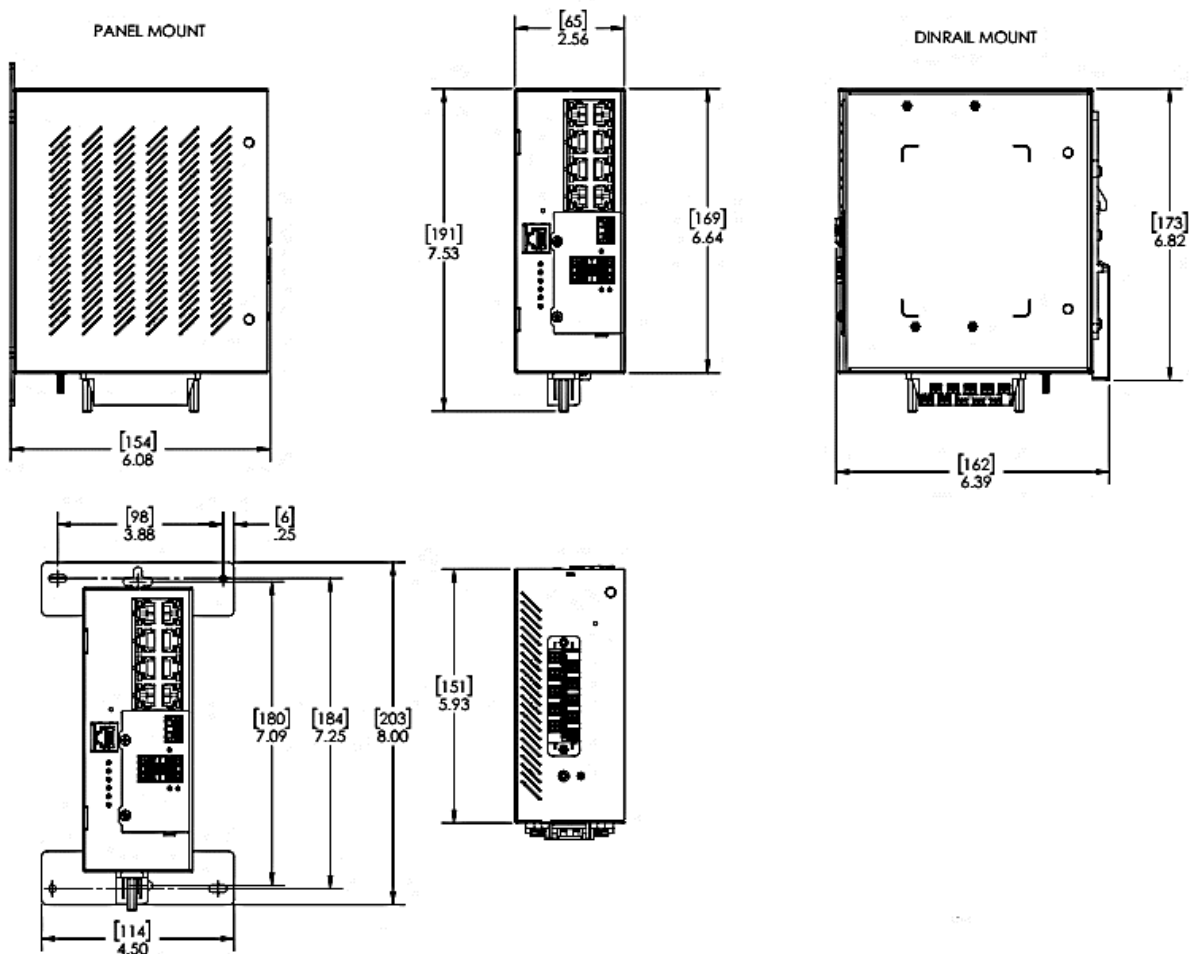
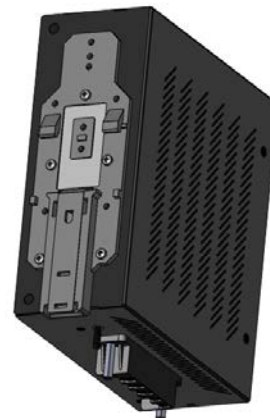
**Table 4. Standards and Management**

Description	Specification
<b>IEEE Standards</b>	<p>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 802.1D Spanning Tree Protocol  IEEE 802.1w -2001 Rapid Spanning Tree Protocol (RSTP)  IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP:2004)  IEEE 802.1X-2010 Port Based Network Access Control  IEEE 802.1AB – 2016 Station and Media Access Connectivity discovery (LLDP)</p>
<b>RFC Compliance</b>	<ul style="list-style-type: none"> <li>• RFC 768: UDP</li> <li>• RFC 783: TFTP</li> <li>• RFC 791: IPv4</li> <li>• RFC 792: ICMP</li> <li>• RFC 793: TCP</li> <li>• RFC 854: Telnet</li> <li>• RFC 959: FTP</li> <li>• RFC 1157: SNMP</li> <li>• RFC 1901,1902-1907 SNMPv2</li> <li>• RFC 2273-2275: SNMPv3</li> <li>• RFC 2571: SNMP Management</li> <li>• RFC 1166: IP Addresses</li> <li>• RFC 1643: Ethernet Interface MIB</li> <li>• RFC 2068: HTTP</li> <li>• RFC 2131, 2132: DHCP</li> <li>• RFC 2817 Upgrading to TLS Within HTTP/1.1</li> <li>• RFC 2818 HTTP Over TLS</li> <li>• RFC 3376: IGMP v3</li> <li>• RFC 2474: DiffServ Precedence</li> <li>• RFC 3046: DHCP Relay Agent Information Option</li> <li>• RFC 3580: 802.1x RADIUS</li> <li>• RFC draft-ietf-opsawg-tacacs-09 -TACACS+</li> </ul>



# Dimensions

All dimensions are shown in inches.





## Ordering Information

Base	Power Supply	Mount	Ethernet Port 1-7(8)*	Ethernet Port 9 & 10	Conformal Coating	Description
iES10G-S	LV	D	7RJ45&1GRJ45	2GSFP	C1	
iES10G-S						Slim Line Managed core assembly and packaging
	LV					Dual Input 10-48VDC
	MV					Single Input 36-75VDC with Single 10-48VDC Backup
	HV					Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup
		D				DIN Rail Mounting
		P				Panel Mounting
		N				No Mounting Hardware
						None
			7RJ45&1GRJ45			7 X 10/100Base-T(X) RJ45 and 1 X 10/100/1000Base-T(X) RJ45
			7RJ45&1GCX			Combo*** 1 X 10/100/1000Base-T(X) RJ45 and 1 X 100/1000Base-X
				XX		None
				2GRJ45		2 X 10/100/1000Base-T(X) RJ45
				2GSFP		2 X 100/1000Base-X SFP (Blank no optical transceivers**)
				2GCX		Combo*** 2 X 10/100/1000Base-T(X) RJ45 and 2 X 100/1000Base-X (Blank no optical transceivers**)
					C1	Conformal Coating

\*Port 9&10 cannot be XX when 7RJ45&1GCX is selected

\*\*SEE ACCESSORIES FOR SFP TRANSCEIVER PRICING

\*\*\*Combo of the 2 ports available, only 1 Port can be used in combination

**Example Order Code**    iES10G-S-LV-D-7RJ45&1GCX-2GSFP-C1

**Description:**    10 Port Ethernet Switch with a combination of Gigabit Ports, Slim Line, (Power Supply) Dual Input 10-48VDC, DIN Rail Mounting, (Ethernet Port 1-7(8))—7 X 10/100Base-T(X) RJ45 and 1 X 10/100/1000Base-T(X) RJ45, (Ethernet Port 9 & 10)—2 X 100/1000Base-X SFP, C1 - added for conformal coating.