

IES-3242GC-E

>> Industrial Rack Mount 26-port Managed Ethernet Switch with 24x10/100Base-T(X) Ports and 2xGigabit Combo Ports (Enhanced)

- Supports **O-Ring** (recovery time < 10ms over 250 units of connection), MSTP/RSTP/ STP (IEEE 802.1s/w/D) for Ethernet Redundancy
- Support ACLs, 802.1x User Authentication for security
- Supports SNMP v1/v2c/v3, QoS, IGMP, RMON & Port based/ 802.1Q VLAN Network Management
- Web-based ,Telnet, Console, CLI, and Windows utility (Open-Vision) configuration
- 19 inches rack mountable
- Support AC and Dual DC power inputs
- Provide Extend operating temperature from -40 to 70 °C



> Features

- World's fastest Redundant Ethernet Ring: O-Ring (recovery time < 10ms over 250 units of connection)
- Secured ACL supported
- **MSTP/RSTP/STP**(IEEE 802.1s/w/D)
- IGMP snooping for filtering multicast traffic
- Port Trunking for easy of bandwidth management
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- Include 100~240 VAC and Dual +12~+48 VDC or -12~-48 VDC power inputs
- Extend operating temperature from -40 to 70 °C
- Port lock to prevent access from unauthorized MAC address
- Bundled Windows utility (Open-Vision) support centralization management and configurable by Web-based ,Telnet, Console, CLI
- Completely selection to support 100Base-T(X), 1000Base-T and 1000 Base-X port in SFP connector
- 19 inches rack mountable

> Introduction

IES-3242GC-E is managed Redundant Ring Ethernet switch with 24x10/100Base-T(X) ports and 2xGigabit Combo ports (Enhanced). With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), and MSTP/RSTP/STP (IEEE 802.1s/w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. IES-3242GC-E can be managed centralized and convenient by a powerful windows utility — Open-Vision. IES-3242GC-E also supports functions of network management, such as SNMP, RMON, Port Trunking, and Port/Tag-based VLAN security. IES-3242GC-E support one full-range AC and dual DC power inputs from +12~48 VDC or -12~-48 VDC, and support extend operating temperature from -40 °C to 70 °C. One additional relay output is provided for system alarm warning, Therefore, the switch is one of the most reliable choice for highly-managed and Fiber Ethernet application.

> Specifications

ORing Switch Model	IES-3242GC-E
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	24
Gigabit combo port with 10/100/1000Base-T(X) and 1000Base-X SFP	2
RS-232 Serial Console Port	RS-232 console cable. 9600bps, 8, N, 1
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-T(X), IEEE 802.3ab for 1000Base-T IEEE 802.3z for 1000Base-X 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	Max. Number of Available VLANs:256 IGMP multicast groups: 256 Port rate limiting: User Define
Security Features	Enable/disable ports, MAC based port security ACL supported 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
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (O-Ring) with recovery time less than 10ms 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
Network Redundancy	O-Ring STP RSTP MSTP
LED indicators	
Power indicator	Green : Power LED x 4
Status indicator	Green on for system ready
R.M. indicator	Green : Flashing to indicate system operated in O-Ring Master mode
O-Ring indicator	Green : Indicate system operated in O-Ring mode
Fault indicator	Amber : indicate excepted event occurred
10/100Base-T(X) RJ45 port indicator	Green at left for port Link/Act. Green at right for 100Mbps link

1000 Base-T / Fiber port indicator	Green for port Link/Act.
Power	
Redundant Input power	100~240VAC with power cord and dual +12~+48 VDC or -12~-48 VDC inputs in 6-pin terminal block
Power consumption (Typ.)	18 Watts
Overload current protection	Present
Physical Characteristic	
Dimension (W x D x H)	443.7(W) x 200(D) x 44mm(H) mm (17.47x7.88x1.73 inch.)
Weight (g)	2480 g
Environmental	
Operating Temperature	-40 to 70°C (-40 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
Warranty	2 years

> Ordering Information

IES-3 **AA** **B** **CC** - **D**

Code efnition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type	Model Type
Option	- 24: 24 ports	- 2: 2 port	-GC: Gigabit combo port	-E: enhanced model with dual DC inputs and -40 to 70 °C operating temperature

Available Model	Model Name	Description
	IES-3242GC-E	Industrial 26-port Ethernet Switch with 24x10/100Base-T(X) Ports and 2xGigabit Combo ports (Enhanced)

Company Overview

Key Technologies

New Products

Product Selection guide

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Solution

Industrial Serial Card

USB Server

Accessories

SFP1G LC Series

1-port Gigabit Ethernet SFP modules

Accessories Web Link ~ http://www.oring-networking.com/Industrial_Accessories.html

> Specifications

Spec	Model Name							
	SFP1G-SX/-I	SFP1G-MLX/-I	SFP1G-LX10/-I	SFP1G-LX20/-I	SFP1G-LHX30/-I	SFP1G-LHX40/-I	SFP1G-XD50/-I	SFP1G-ZX70/-I
Fiber mode	Multi-mode	Multi-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode
Typical Distance	550 m	62.5/125 : 2km 50/125 : 1km	10 km	20 km	30 km	40 km	50 km	70 km
Operating Temperature	0~70℃ -20~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)
Output Optical Power 9/125 μm fiber (Max. TX)	-	-	-3 dBm	-2 dBm	1 dBm	1 dBm	1 dBm	5 dBm
Output Optical Power 9/125 μm fiber (Min. TX)	-	-	-9.5 dBm	-8 dBm	-4 dBm	-4 dBm	-4 dBm	0 dBm
Output Optical Power 62.5/125 μm fiber (Max. TX)	-4 dBm	-1 dBm	-	-	-	-	-	-
Output Optical Power 62.5/125 μm fiber (Min. TX)	-9.5 dBm	-9 dBm	-	-	-	-	-	-
Output Optical Power 50/125 μm fiber (Max. TX)	-4 dBm	-1 dBm	-	-	-	-	-	-
Output Optical Power 50/125 μm fiber (Min. TX)	-9.5 dBm	-9 dBm	-	-	-	-	-	-
Wavelength	850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm
Optical Input Power-minimum (Sensitivity)	-18 dBm	-19 dBm	-20 dBm	-23 dBm	-24 dBm	-24 dBm	-24 dBm	-24 dBm
Loss of Signal-Asserted	-18 dBm	-19 dBm	-20 dBm	-23 dBm	-24 dBm	-24 dBm	-24 dBm	-24 dBm
Loss of Signal-Deasserted	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm

> Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP1G-SX	1Gbps SFP optical Transceiver, Multi-mode / 550m, 850nm
	SFP1G-SX-I	1Gbps SFP optical Transceiver, Multi-mode / 550m, 850nm, Industrial Grade	-20 ~ 85℃
	SFP1G-MLX	1Gbps SFP optical Transceiver, Multi-mode / 2km, 1310nm	0 ~ 70℃
	SFP1G-MLX-I	1Gbps SFP optical Transceiver, Multi-mode / 2km, 1310nm, Industrial Grade	-40 ~ 85℃
	SFP1G-LX10	1Gbps SFP optical Transceiver, Single-mode / 10km, 1310nm	0 ~ 70℃
	SFP1G-LX10-I	1Gbps SFP optical Transceiver, Single-mode / 10km, 1310nm, Industrial Grade	-40 ~ 85℃
	SFP1G-LX20	1Gbps SFP optical Transceiver, Single-mode / 20km, 1310nm	0 ~ 70℃
	SFP1G-LX20-I	1Gbps SFP optical Transceiver, Single-mode / 20km, 1310nm, Industrial Grade	-40 ~ 85℃
	SFP1G-LHX30	1Gbps SFP optical Transceiver, Single-mode / 30km, 1310nm	0 ~ 70℃
	SFP1G-LHX30-I	1Gbps SFP optical Transceiver, Single-mode / 30km, 1310nm, Industrial Grade	-40 ~ 85℃
	SFP1G-LHX40	1Gbps SFP optical Transceiver, Single-mode / 40km, 1310nm	0 ~ 70℃
	SFP1G-LHX40-I	1Gbps SFP optical Transceiver, Single-mode / 40km, 1310nm, Industrial Grade	-40 ~ 85℃
	SFP1G-XD50	1Gbps SFP optical Transceiver, Single-mode / 50km, 1550nm	0 ~ 70℃
	SFP1G-XD50-I	1Gbps SFP optical Transceiver, Single-mode / 50km, 1550nm, Industrial Grade	-40 ~ 85℃
	SFP1G-ZX70	1Gbps SFP optical Transceiver, Single-mode / 70km, 1550nm	0 ~ 70℃
	SFP1G-ZX70-I	1Gbps SFP optical Transceiver, Single-mode / 70km, 1550nm, Industrial Grade	-40 ~ 85℃

SFP1G-BIDI LC Series

1-port Gigabit Ethernet BIDI-SFP modules

Accessories Web Link ~ http://www.oring-networking.com/Industrial_Accessories.html

> Specifications

Spec	Model Name							
	SFP1GB3 -LX10/-I	SFP1GB5 -LX10/-I	SFP1GB3 -LX20/-I	SFP1GB5 -LX20/-I	SFP1GB3 -LX40/-I	SFP1GB5 -LX40/-I	SFP1GB3 -LX60/-I	SFP1GB5 -LX60/-I
Fiber mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode
Typical Distance	10 m	10 m	20 km	20 km	40 km	40 km	60 km	60 km
Operating Temperature	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)	0~70℃ -40~85℃ (-I model)
Output Optical Power 9/125 μm fiber (Max. TX)	-3 dBm	-3 dBm	-2 dBm	-2 dBm	2 dBm	2 dBm	5 dBm	4 dBm
Output Optical Power 9/125 μm fiber (Min. TX)	-9 dBm	-9 dBm	-8 dBm	-8 dBm	-3 dBm	-3 dBm	0 dBm	-2 dBm
Wavelength	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm
Optical Input Power-minimum (Sensitivity)	-21 dBm	-21 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-24 dBm	-25 dBm
Loss of Signal-Asserted	-21 dBm	-21 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-24 dBm	-25 dBm
Loss of Signal-Deasserted	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm

> Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP1GB3-LX10-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 10KM, TX-1310nm, RX-1550nm
	SFP1GB5-LX10	1Gbps SFP optical Transceiver, Single-mode BIDI / 10KM, TX-1310nm, RX-1550nm, Industrial Grade	-40 ~ 85℃
	SFP1GB5-LX10-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 10KM, TX-1550nm, RX-1310nm	0 ~ 70℃
	SFP1GB3-LX20	1Gbps SFP optical Transceiver, Single-mode BIDI / 10KM, TX-1550nm, RX-1310nm, Industrial Grade	-40 ~ 85℃
	SFP1GB3-LX20-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 20KM, TX-1310nm, RX-1550nm	0 ~ 70℃
	SFP1GB5-LX20	1Gbps SFP optical Transceiver, Single-mode BIDI / 20KM, TX-1310nm, RX-1550nm, Industrial Grade	-40 ~ 85℃
	SFP1GB5-LX20-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 20KM, TX-1550nm, RX-1310nm	0 ~ 70℃
	SFP1GB3-LX40	1Gbps SFP optical Transceiver, Single-mode BIDI / 20KM, TX-1550nm, RX-1310nm, Industrial Grade	-40 ~ 85℃
	SFP1GB3-LX40-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 40KM, TX-1310nm, RX-1550nm	0 ~ 70℃
	SFP1GB5-LX40	1Gbps SFP optical Transceiver, Single-mode BIDI / 40KM, TX-1310nm, RX-1550nm, Industrial Grade	-40 ~ 85℃
	SFP1GB5-LX40-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 40KM, TX-1550nm, RX-1310nm	0 ~ 70℃
	SFP1GB3-LX60	1Gbps SFP optical Transceiver, Single-mode BIDI / 40KM, TX-1550nm, RX-1310nm, Industrial Grade	-40 ~ 85℃
	SFP1GB3-LX60-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 60KM, TX-1310nm, RX-1550nm	0 ~ 70℃
	SFP1GB5-LX60	1Gbps SFP optical Transceiver, Single-mode BIDI / 60KM, TX-1310nm, RX-1550nm, Industrial Grade	-40 ~ 85℃
	SFP1GB5-LX60-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 60KM, TX-1550nm, RX-1310nm	0 ~ 70℃
	SFP1G-ZX70-I	1Gbps SFP optical Transceiver, Single-mode BIDI / 60KM, TX-1550nm, RX-1310nm, Industrial Grade	-40 ~ 85℃