

# EG97000 Series

28-Port Hardened Managed Layer 3 Switch



## Product Highlights

### High Bandwidth and Highly Flexible Ports

- 16 x 100/1000M dual-rate SFP ports for multiple fiber connections
- 4 x 1/10G dual-rate SFP+ ports for connections into the hub/core
- 8 x 10/100/1000BASE-T RJ45 ports

### Hardened-Grade for Non-Ventilated & Harsh Environments

- Wide operating temperature range -40 to 75°C (-40 to 167°F)
- Fan-less operation
- High impact, thermal shock, and electrical noise resistance

### Full Layer 3 Functionality

- Optimized routing at hardware level
- Improved fault isolation
- Layer 3 capability connects networks together

### Compliant Products

- TAA Compliant for government projects
- NEMA TS2 rated
- UL certified for safety

### Management/Security Features

- Port control
- Storm detection and control
- Configure and monitor with eVue™ and eLite™

### Lifetime Warranty

- Complimentary Technical Support
- Free Firmware Upgrades
- Includes ECN and EOL notices

## Overview

EtherWAN's EG97000 is a hardened layer 3 switch/router, which allow for connecting networks. With multiple gigabit SFP connections for fiber along with a 10-gigabit backbone, the EG97000 provides flexibility, speed, and reliability to support networks for urban infrastructure, transportation, security, and other areas where connectivity is crucial.

## Ordering Information

### Model

<b>EG97244-4VZ</b>	8-port 10/100/1000BASE-T + 16-port 100/1000BASE SFP + 4-port 1/10G SFP+ Hardened Managed Layer 3 Ethernet Switch
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### Power Input Interface (Z)

<b>TR</b>	±48VDC Redundant (Terminal Block)
<b>WR</b>	100-240VAC Redundant (Terminal Block)
<b>CR</b>	100-240VAC Redundant (AC Inlet)

# Software Features

<b>Interface</b>	+
CLI, Telnet, Web GUI	
<b>Management</b>	+
Firmware upgrade	
Configuration backup	
DHCP Server/Client	
RMON (Remote Monitoring)	
Port Mirroring	
NTP (Network Time Protocol) synchronization	
LLDP (Link Layer Discovery Protocol)	
IPv4/IPv6	
SNMP v1/v2c/v3	
<b>Security</b>	+
MAC Address filtering	
Enable/Disable port	
Storm control	
System logging	
Remote authentication through RADIUS and TACACS+	
Complex password support	
Multi-user login and privileged access management	
SSH for CLI and Telnet security	
SSL and HTTPS for web security	
ACL (Access Control List, up to 4096 entries)	
<b>Quality of Service (QoS)</b>	+
Priority Queues: 8 queues per port	
Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and strict mode	
Rate Limiting (Ingress/Egress)	

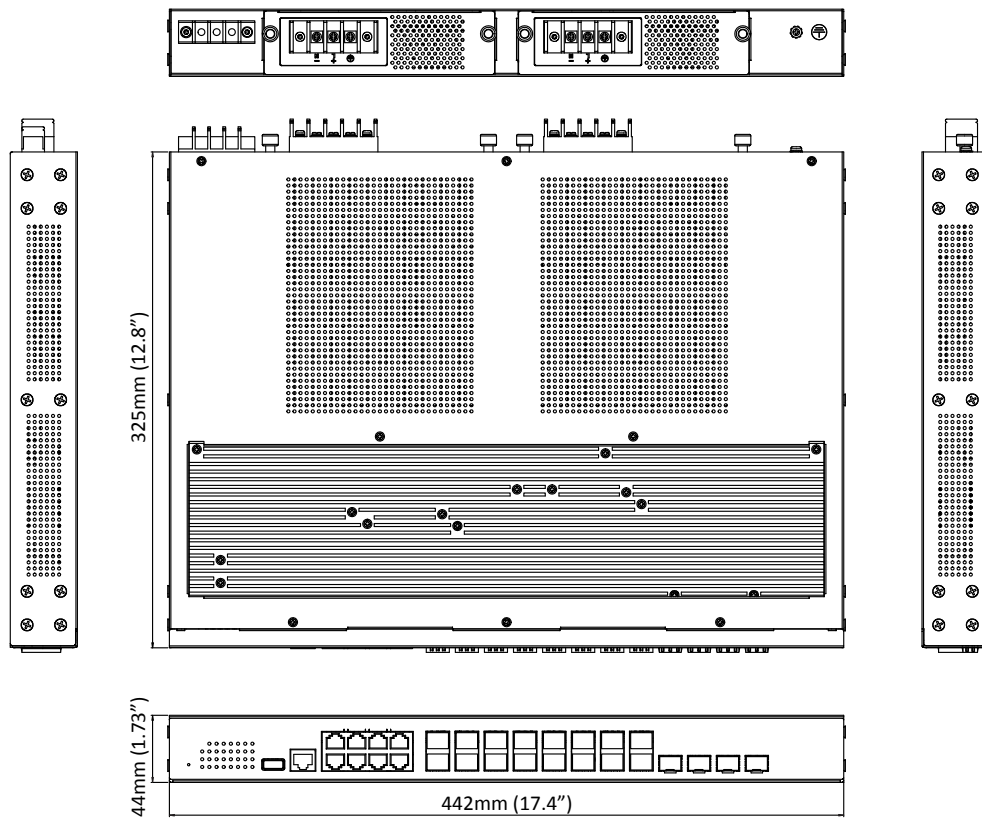
<b>Layer 2 Features</b>	+
Auto-negotiation for port speed and duplex	Flow Control IEEE 802.3x full duplex mode Back-pressure half duplex mode
Redundant Protocols	IEEE 802.1D STP IEEE 802.1w RSTP IEEE 802.1s MSTP
VLANs	IEEE 802.1Q Tag VLANs GVRP GMRP
Link Aggregation	Static Trunk IEEE 802.3ad LACP
IGMP Snooping v1/v2/v3	
<b>Layer 3 Features IPv4</b>	+
Unicast Routing	Static Routing (1K) RIP v1/v2 OSPF v2
Multicast Routing	PIM-DM PIM-SM PIM-SSM
Routing Redundancy	VRRP
<b>Layer 3 Features IPv6</b>	+
IPv6 Unicast Routing	RIPng OSPF v3
IPv6 Multicast Routing	PIM6-DM PIM6-SM
IPv6 Routing Redundancy	VRRP v3
<b>Software Properties and Performance</b>	+
Switching Fabric	128Gbps
Forwarding Rate	95.23Mpps
Total VLAN Entries	256 (4096 VID)
Jumbo Frame Size	12KB
MAC Table Size	24K
Packet Buffer Memory	32M bits
L2 Routes	Up to 24,000 unicast and 1,000 multicast routes
L3 IPv4 Routes	Up to 8,000 unicast and 8,000 multicast routes
L3 IPv6 routes	Up to 2,000 unicast routes

# Hardware Specifications

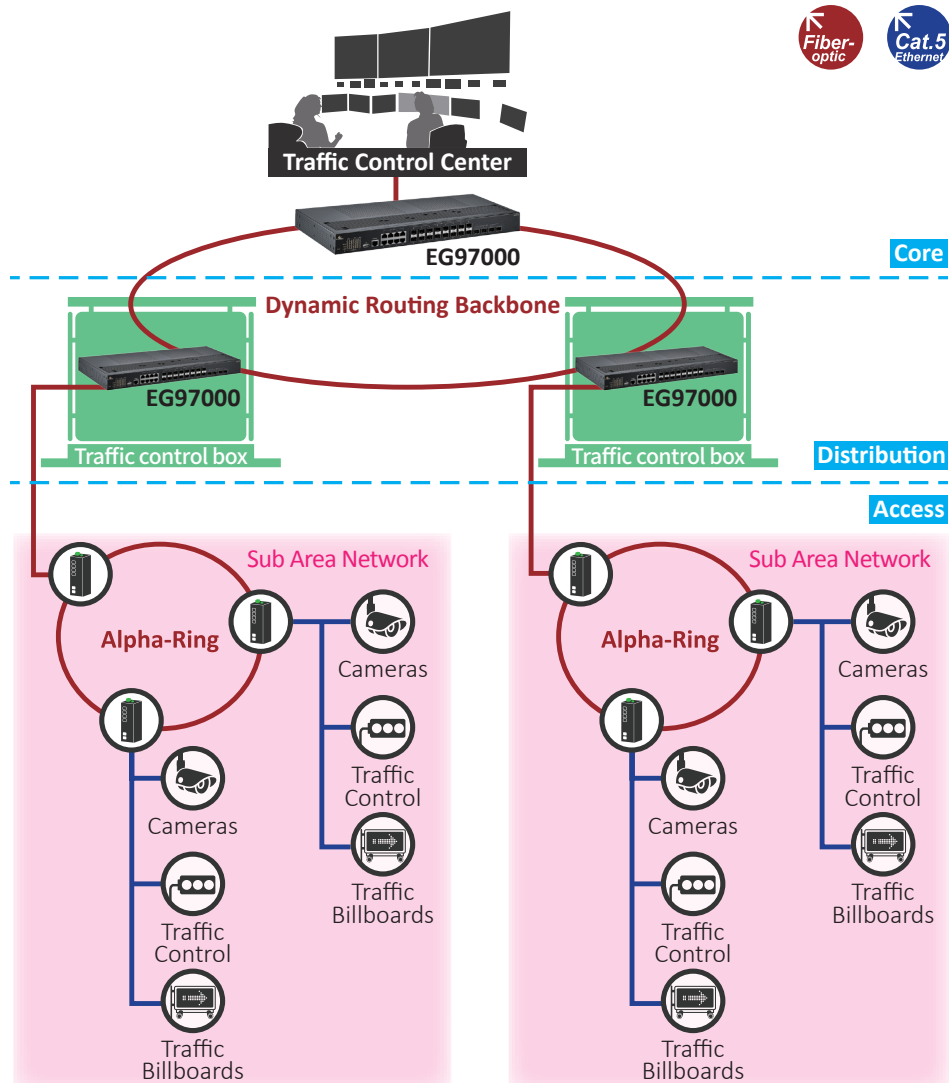
Interface +	
Ethernet	8 x 10/100/1000BASE-T 16 x 100/1000BASE-SFP 4 x 1G/10G SFP+
Console	1 x RJ45
Config Backup	1 x USB (Type A Connector)
Alarm Contact	Relay output, current capacity 0.6A/30VDC
LED Indicators	Per Unit: Power 1, Power 2, Alarm Per Port: Link/Activity
Technology +	
Standards	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3ab 1000BASE-T IEEE 802.3ad link aggregation control IEEE 802.3z 1000BASE-SX/1000BASE-LX IEEE 802.3x full duplex and flow control IEEE 802.1D STP IEEE 802.1p QoS IEEE 802.1Q Tag VLANs IEEE 802.1s MSTP IEEE 802.1w RSTP IEEE 802.1x PNAC IEEE 802.1ab LLDP
Forward/Filtering Rate	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps 14,881,000pps for 10Gbps
Processing Type	Store-and-forward Auto-negotiation Half-duplex back-pressure and full-duplex flow control Auto MDI/MDIX
System Memory	4GB DDR3 SDRAM
Flash Storage	2GB
Power +	
Input	VTR: ±48VDC Redundant (Terminal block) VWR: 100-240VAC Redundant (Terminal block) VCR: 100-240VAC Redundant (AC Inlet)
Power Consumption	75W Max
Physical +	
Casing Material	Metal
Dimensions	442 x 325 x 44mm (W x D x H) 17.4" x 12.8" x 1.73"
Weight	5.6kg (12.3lbs)
Installation Type	Rack mounting

Environmental +	
Operating Temp.	-40 to 75°C (-40 to 167°F)
Storage Temp.	-45 to 85°C (-49 to 185°F)
Relative Humidity	5% to 95% (non-condensing)
MTBF	1,143,890 hours
Regulatory +	
ISO	Manufactured in ISO-9001 facility
EMC	EN 55032
EMI	FCC Part 15B Class A VCCI Class A EN 61000-6-4
EMS	EN 61000-4-2 (ESD) EN 61000-4-3 (Radiated RFI) EN 61000-4-4 (Burst) EN 61000-4-5 (Surge) EN 61000-4-6 (Induced RFI) EN 61000-4-8 (Magnetic field)
Safety	UL 62368
Traffic	NEMA TS2
Rail	EN 50121-4
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Free Fall	FED STD 101C Method 5007.1
Warranty +	
Length	Limited Lifetime
Details	<a href="http://www.etherwan.com/support/warranty-policy">www.etherwan.com/support/warranty-policy</a>
What's Included +	
Device	Ethernet Switch
Cables	1 Console Cable
Power	1 AC Power Cord
Installation	Mounting brackets, screws
Documentation	Quick Install Guide

## Dimensions



## Application



# Software

Network Management eVue™ Network Configuration and Monitoring Tool

Network Discovery eLite™ Network Discovery and IP Configuration Tool

**EtherWAN** Home Devices Batch Group Events Settings Screen Zoom Logout

**Device List**

	IP	System Name	Group
Online	192.168.50.12	EG99-5012	
Online	192.168.50.62	EX709-5062	
Online	192.168.50.254	R50	
Online	192.168.50.11	EG99-5011	
Online	192.168.50.63	EX74-5063	
Online	192.168.50.14	EX779-5014	
Online	192.168.50.61	EX71v2-5061	
Online	192.168.50.44	EX71-5044	
Online	192.168.50.64	EX73-5064	
Online	192.168.50.34	EX739-5034	

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**Topology**

Online Offline Event

**Latest Events**

Acknowledged	ID	Severity	Time	Service	Node	Message
✓	5107	Normal	6/28/2019, 9:50:35 AM	login	server	User 'admin' logged in.
✓	5106	Normal	6/27/2019, 10:00:50 AM	login	server	User 'admin' logged in.
✓	5105	Major	6/24/2019, 1:18:23 PM	ping-monitor	192.168.1.19	Web 192.168.1.19 is down.
✓	5105	Major	6/24/2019, 1:18:23 PM	ping-monitor	192.168.1.19	Telnet 192.168.1.19 is down.
✓	5104	Normal	6/24/2019, 1:12:34 PM	login	server	User 'admin' logged in.

**eLite** List Server Firmware Configuration Help

Search

IP Address	MAC Address
192.168.50.22	00:e0:b3:50:22:00
192.168.50.31	00:e0:b3:50:31:00
192.168.50.72	00:e0:b3:50:72:00
192.168.50.55	00:e0:b3:50:55:00
192.168.50.23	00:e0:b3:50:23:00
192.168.50.73	00:e0:b3:50:73:00
192.168.50.44	00:e0:b3:50:44:00
192.168.50.64	00:e0:b3:50:64:00
192.168.50.43	00:e0:b3:50:43:00
192.168.50.62	00:e0:b3:50:62:00
192.168.50.71	00:e0:b3:50:71:00
192.168.50.24	00:e0:b3:50:24:00

## Accessories

Hardened 100BASE SFP Modules		+
<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>		
Hardened Gigabit SFP Modules		+
<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>		
Power Supplies		+
<a href="http://www.etherwan.com/products/power-supplies/power-adapters">www.etherwan.com/products/power-supplies/power-adapters</a>		
Power Modules		+
<a href="#">EX41-2750A240</a>	Power Module for EG97000 series, 100-240VAC PSU (85W), AC Inlet	