



Connection Guide

When Connectivity is Crucial



- ◆ Ethernet Switches
- ◆ PoE Solutions
- ◆ Media Converters
- ◆ Ethernet Extenders
- ◆ Wireless Products
- ◆ Accessories



About EtherWAN

Founded in 1996, EtherWAN's Ethernet expertise in urban Infrastructures provides connectivity solutions that make communities safe and secure.

From in-house designed, engineered and manufactured products, to implementation for customers of all sizes, EtherWAN achieves an unparalleled level of reliability and quality for applications when connectivity is crucial.

What Do We Offer?

EtherWAN's established product lines and customizable features are built to support the long-term health of your network.

With managed and unmanaged options, we have the right networking solution for nearly any communications challenge your urban infrastructure may face.

EtherWAN's product range includes Ethernet switches, media converters, Ethernet extenders (phone line & coaxial), and Power over Ethernet products built in a wide variety of form factors and environmental grades.

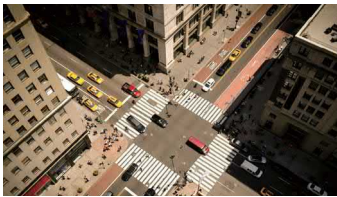
- NEMA TS2 for ITS and Transportation
- IEC 61850-3 / IEEE 1613 for Utility Substations
- EN 50155 for Railway and Train Applications
- EN 61000 for Industrial Automation Applications
- ISA 12.12.01 / ATEX for Hazardous locations
- PoE for Security & Access Control

Industrial Ethernet Solutions

Creating reliable, secure, and durable network solutions requires more than just manufacturing know-how and quality assurance. It requires an in-depth understanding of the requirements and constraints of specific applications. These requirements include not just data transfer speed, but support for redundancy protocols, multi-level security, and the ability to seamlessly mesh with existing systems and future expansions.

With core competencies in hardware design and software implementation, EtherWAN provides a comprehensive range of commercial and industrial grade connectivity products that support the global integration of Ethernet and Internet of Things (IoT) services.

EtherWAN's focus markets include Intelligent Transportation Systems (ITS), IP Security, Power Generation & Utilities and Critical Infrastructure Solutions.



Transportation



IP Security



Electric & Utility



Critical Infrastructure



Your Go-to Resource
— for Network Expertise

Full Product Lines

Our established product lines and customizable features are built to support the long-term health of your network. With hardened, industrial and commercial grade products, we have the right networking for nearly any communications challenge your network may face.

1 Ethernet Switches

EtherWAN offers a robust line of unmanaged and unmanaged switches with Layer 2, Lite Layer 3 and Layer 3 capabilities. EtherWAN switches are deployed across a wide range of applications and industries, delivering stable and speedy data transfer year in and year out.

- 5 [Hardened & Industrial Layer 3 Ethernet](#)
- 7 [Hardened & Industrial Managed Ethernet](#)
- 9 [Hardened & Industrial Unmanaged Ethernet](#)
- 12 [Commercial Ethernet](#)



2 PoE Solutions

EtherWAN's PoE products deliver unprecedented levels of reliability and flexibility, with a broad range of products designed for harsh environments, all with the power output needed to support even the most demanding PoE powered devices.

- 13 [Managed Ethernet Switches](#)
- 17 [Unmanaged Ethernet Switches](#)
- 20 [Hardened & Industrial Media Converters](#)
- 21 [Long Reach Power over Link](#)



3 Media Converters

EtherWAN's Ethernet media converter series offers a full range of Ethernet to fiber transceivers from multi-mode, single-mode, or WDM with multiple selections of distance, wavelength and connector type.

- 22 [Hardened & Industrial](#)
- 24 [Commercial](#)
- 27 [Multiple Channel Chassis](#)



4 Ethernet Extenders

EtherWAN's Ethernet Extenders provide unique solutions for long-range connectivity over existing wires and infrastructure by removing the standard 100-meter limit of IEEE 802.3 Ethernet. By using existing cable infrastructure such as phone lines, twisted pairs or coaxial cable, EtherWAN's Ethernet extenders economically connect remote or separated network locations.

28 [Long Reach Ethernet over Copper Pairs](#)



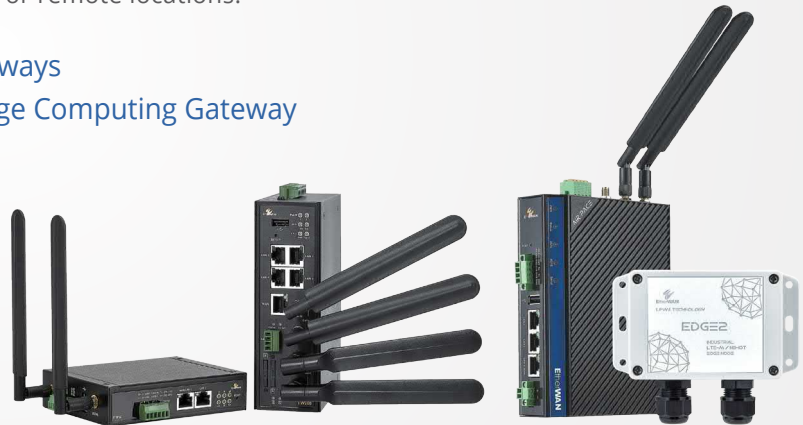
5 Wireless

EtherWAN provides a full line of industrial grade gateways that are designed for critical infrastructure and industrial applications. They provide a secure, reliable connection to industrial controllers, process automation equipment and smart grid assets on third party sites or remote locations.

29 [Industrial Cellular Gateways](#)

31 [Industrial Smart IoT Edge Computing Gateway](#)

32 [IoT LPWA Solution](#)



6 Accessories

EtherWAN provides a variety of accessory products to support our connectivity solutions. These include standard items such as mounting kits and racks, as well as specialized devices such as surge protectors, SFP transceivers, and an innovative backup solution.



33 [Surge Protectors](#)

33 [Power Adapters](#)

34 [Network Interface Cards](#)

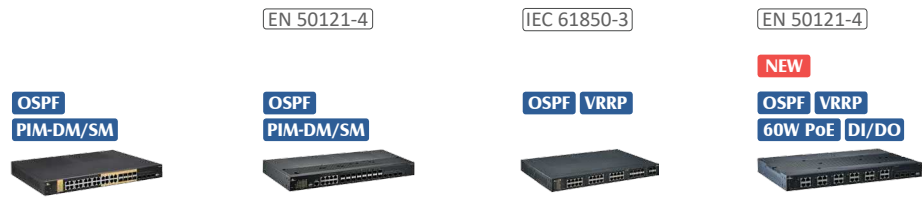
35 [SFP Transceivers](#)

38 [Backup Tool](#)

38 [TransRack](#)

39 [Mounting Kits](#)

Hardened & Industrial Layer 3 Ethernet >>



	Layer 3	Layer 3	Lite Layer 3	Lite Layer 3
Model Name	EG99000	EG97000	EX77900	EX75900
Interface				
Max. Total Ports	28	28	28	28
Max. 10/100BASE-TX	-	-	-	-
Max. 10/100/1000BASE-T	24	8	24	24
Max. 100BASE-FX	-	-	-	-
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	8	-
Max. 1000BASE-SFP	8	16	8	4
Max. 10 Gigabit SFP+	4	4	4	4
PoE Ports	-	-	-	24 (60W)
PoE Power Budget	-	-	-	720W
RS-232 Console Port	√	√	√	√
Alarm Contact	√	√	√	√
Digital Input	-	-	-	2
Performance				
MAC Address Table Size	24K	24K	16K	16K
Packet Buffer Memory (bits)	32M	32M	12M	12M
Jumbo Frame (bytes)	12K	12K	12K	9216
Mechanical				
Casing	Metal	Metal	Metal	Metal
Installation*	R	R	R	R
Dimensions (mm) (W x D x H)	430 x 375 x 44.2	442 x 325 x 44	442 x 375 x 44	442 x 270 x 44.2
Power Input				
No. of Power Inputs	2	2	1 or 2	2
110 - 240VAC	√	√	√	-
Terminal Block	±48VDC	±48VDC	±48VDC	52 - 57VDC
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	-	-	-
-40 to 75°C (-40 to 167°F)	√	√	√	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	√	√
STP / RSTP / MSTP	√	√	√	√
Network Management & Control				
Layer 2	-	-	-	√
Layer 3 Routing	√	√	√	√
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	√	-
EN 50155 / EN 50121-4	-	EN 50121-4	-	EN 50121-4
UL 508 / UL 61010	-	-	-	-
UL 60950 / UL 62368	UL 62368	UL 62368	UL 62368	UL 62368
NEMA TS2	-	√	√	√
Network Management Software				
eVue	√	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Layer 3 Ethernet >>



	Lite Layer 3	Lite Layer 3	Lite Layer 3	Lite Layer 3
Model Name	EX78900	EX78900E	EX73900	EX73900E
Interface				
Max. Total Ports	16	16	16	16
Max. 10/100BASE-TX	-	-	-	-
Max. 10/100/1000BASE-T	12	12	12	12
Max. 100BASE-FX	-	-	-	-
Max. 100BASE-SFP	-	4	-	4
Max. 1000BASE-SX/LX/BX	4	-	4	-
Max. 1000BASE-SFP	4	4	4	4
Max. 10 Gigabit SFP+	-	-	-	-
PoE Ports	8 (60W)	12 (8 x 30W, 4 x 60W)	-	-
PoE Power Budget	240W	240W	-	-
RS-232 Console Port	√	√	√	√
Alarm Contact	√	√	√	√
Digital Input	-	2	-	2
Performance				
MAC Address Table Size	16K	16K	16K	16K
Packet Buffer Memory (bits)	12M	12M	12M	12M
Jumbo Frame (bytes)	9216	9216	9216	9216
Mechanical				
Casing	Aluminum	Aluminum	Aluminum	Aluminum
Installation*	D, P	D, P	D, P	D, P
Dimensions (mm) (W x D x H)	72 x 140 x 170	72 x 140 x 170	72 x 140 x 170	72 x 140 x 170
Power Input				
No. of Power Inputs	2	2	2	2
110 - 240VAC	-	-	-	-
Terminal Block	52 - 57VDC	52 - 57VDC	12 - 48VDC	12 - 48VDC
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	-	-	-
-40 to 75°C (-40 to 167°F)	√	√	√	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	√	√	√	√
STP / RSTP / MSTP	√	√	√	√
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	√	√	√	√
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	√	√
EN 50155 / EN 50121-4	-	EN 50121-4	-	EN 50121-4
UL 508 / UL 61010	UL 61010	UL 61010	UL 61010	UL 61010
UL 60950 / UL 62368	-	-	-	-
NEMA TS2	√	√	√	√
Network Management Software				
eVue	√	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Managed Ethernet >>

IEC 61850-3
EN 50121-4

IEC 61850-3
EN 50121-4

IEC 61850-3



Model Name	EX87000	EX27000	EX77000	EX83304
Interface				
Max. Total Ports	28	28	28	16
Max. 10/100BASE-TX	24	24	24	12
Max. 10/100/1000BASE-T	4	4	4	-
Max. 100BASE-FX	24	24	24	-
Max. 100BASE-SFP	24	24	24	-
Max. 1000BASE-SX/LX/BX	4	4	4	-
Max. 1000BASE-SFP	4	4	4	4
Max. 10 Gigabit SFP+	-	-	-	-
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	√	√	√	√
Alarm Contact	-	-	-	√
Performance				
MAC Address Table Size	8192	8192	8192	16K
Packet Buffer Memory (bits)	3M	3M	3M	12M
Jumbo Frame (bytes)	-	-	-	9216
Mechanical				
Casing	Metal	Metal	Metal	Aluminum
Installation*	R	R	R	D, P
Dimensions (mm) (W x D x H)	442 x 375 x 44	Redundant Power: 442 x 375 x 44 Single Power: 442 x 284 x 44.2	Redundant Power: 442 x 375 x 44 Single Power: 442 x 250 x 44.2	72 x 140 x 170
Power Input				
No. of Power Inputs	1 or 2	1 or 2	1 or 2	2
110 - 240VAC	√	√	√	-
Terminal Block	±48VDC, 88 - 370VDC	±48VDC, 88 - 370VDC	±48VDC, 88 - 370VDC	12 - 48VDC
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	√	-	-
-40 to 75°C (-40 to 167°F)	√	-	√	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	√	√	√	√
STP / RSTP / MSTP	√	√	√	√
Network Management & Control				
Layer 2	√	√	√	-
Layer 3 Routing	-	-	-	√
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	-	-	-
IEC 61850-3 / IEEE 1613	√	√	-	√
EN 50155 / EN 50121-4	EN 50121-4	EN 50121-4	-	-
UL 508 / UL 61010	-	-	-	UL 61010
UL 60950 / UL 62368	UL 62368	UL 62368	UL 62368	-
NEMA TS2	√	-	√	-
Network Management Software				
eVue	√	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Managed Ethernet >>

ISA 12.12.01

EN 50121-4



Model Name	EX73000	EX63000	EX71000	EX61000A
Interface				
Max. Total Ports	18	18	10	10
Max. 10/100BASE-TX	16	16	8	8
Max. 10/100/1000BASE-T	2	2	2	2
Max. 100BASE-FX	-	-	4	4
Max. 100BASE-SFP	-	-	4	4
Max. 1000BASE-SX/LX/BX	2	2	2	2
Max. 1000BASE-SFP	-	-	2	2
Max. 10 Gigabit SFP+	-	-	-	-
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	√	√	√	√
Alarm Contact	√	-	√	√
Performance				
MAC Address Table Size	16K	16K	16K	16K
Packet Buffer Memory (bits)	12M	12M	12M	12M
Jumbo Frame (bytes)	-	-	-	-
Mechanical				
Casing	Aluminum	Metal	Aluminum	Metal
Installation*	D, P	D, P, R	D, P, R	D, P, R
Dimensions (mm) (W x D x H)	65 x 125 x 45	59 x 125 x 45	60 x 125 x 145	54 x 125 x 145
Power Input				
No. of Power Inputs	2	2	2	2
110 - 240VAC	-	-	-	-
Terminal Block	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	√	-	√
-40 to 75°C (-40 to 167°F)	√	-	√	-
Network Redundancy				
Alpha-Ring / Alpha-Chain	√	√	√	√
STP / RSTP / MSTP	√	√	√	√
Network Management & Control				
Layer 2	√	√	√	√
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	√	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	-	EN 50121-4	EN 50121-4
UL 508 / UL 61010	UL 61010	UL 61010	UL 61010	UL 61010
UL 60950 / UL 62368	-	-	-	-
NEMA TS2	-	-	√	-
Network Management Software				
eVue	√	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Unmanaged Ethernet >>



Model Name	EX39924	EX42900	EX32900	EX41922
Interface				
Max. Total Ports	24	8	8	4
Max. 10/100BASE-TX	-	-	-	-
Max. 10/100/1000BASE-T	24	5 / 8	5 / 8	2
Max. 100BASE-FX	-	-	-	-
Max. 100BASE-SFP	-	-	-	2
Max. 1000BASE-SX/LX/BX	-	1	1	-
Max. 1000BASE-SFP	4 (Combo) / 16 (Combo)	-	-	2
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	-	-	-	-
Alarm Contact	-	√	- / √	√
Performance				
MAC Address Table Size	8192	8192 / 4096	8192 / 4096	8192
Packet Buffer Memory (bits)	512K	1M / 192K	1M / 192K	1M
Jumbo Frame (bytes)	16379	10K / 9720	10K / 9720	10K
Mechanical				
Casing	Metal	Metal	Plastic	Metal
Installation*	R	D	D	D
Dimensions (mm) (W x D x H)	440 x 210 x 44	30 x 76.3 x 114 30 x 100 x 149	26 x 76.5 x 114 35 x 86 x 149	36 x 90 x 100
Power Input				
No. of Power Inputs	1	1 / 2	1 / 2	2
110 - 240VAC	√	-	-	-
Terminal Block	-	12 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	√	-	√	-
-40 to 75°C (-40 to 167°F)	-	√	-	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	(EX42908 / EX42917)	-	-
ATEX	-	√	√	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	-	-	-
UL 508 / UL 61010	-	-	-	UL 61010
UL 60950 / UL 62368	-	√	UL 60950 (EX32905 / EX32914)	-

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Unmanaged Ethernet >>



Model Name	EX95000	EX33000	EX94000	EX43000
Interface				
Max. Total Ports	16	16	8	8
Max. 10/100BASE-TX	16	16	8	8
Max. 10/100/1000BASE-T	-	-	-	-
Max. 100BASE-FX	2	2	2	2
Max. 100BASE-SFP	-	-	2	2
Max. 1000BASE-SX/LX/BX	-	-	-	-
Max. 1000BASE-SFP	-	-	-	-
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	-	-	-	-
Alarm Contact	√	√	√	√
Performance				
MAC Address Table Size	4096	4096	1K	1K
Packet Buffer Memory (bits)	1.625M	1.625M	448K	448K
Jumbo Frame (bytes)	-	-	-	-
Mechanical				
Casing	Aluminum	Metal	Aluminum	Metal
Installation*	D, P, R	D, P, R	D, P	D, P
Dimensions (mm) (W x D x H)	75.5 x 110 x 135	69.5 x 110 x 135	50 x 110 x 135	43.6 x 110 x 135
Power Input				
No. of Power Inputs	3	3	2	2
110 - 240VAC	-	-	-	-
Terminal Block	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	12VDC	12VDC	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	√	-	-20 to 60°C (-4 to 140°F)
-40 to 75°C (-40 to 167°F)	√	-	√	-
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	-	√	-
ATEX	-	-	√	√
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	-	-	-
UL 508 / UL 61010	UL 508	UL 508	-	-
UL 60950 / UL 62368	-	-	UL 60950	UL 60950

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Hardened & Industrial Unmanaged Ethernet >>

IEC 61850-3
EN 50121-4



Model Name	EX47000	EX42008	EX32008	EX42000
Interface				
Max. Total Ports	8	8	8	5
Max. 10/100BASE-TX	8	8	8	5
Max. 10/100/1000BASE-T	-	-	-	-
Max. 100BASE-FX	6	1	1	1
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	-
Max. 1000BASE-SFP	-	-	-	-
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	-	-	-	-
Alarm Contact	√	√	√	√
Performance				
MAC Address Table Size	2048	1024	1K	1K
Packet Buffer Memory (bits)	448K	448K	448K	448K
Jumbo Frame (bytes)	-	-	-	-
Mechanical				
Casing	Aluminum	Aluminum	Plastic	Plastic
Installation*	D, P	D, P, R	D	D
Dimensions (mm) (W x D x H)	60 x 125 x 145	30 x 100 x 149	35 x 86 x 149	26 x 70 x 110
Power Input				
No. of Power Inputs	3	2	2	1
110 - 240VAC	-	-	-	-
Terminal Block	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	12VDC	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	-	√	√
-40 to 75°C (-40 to 167°F)	√	√	-	-
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01	-	-	-	-
ATEX	-	-	-	-
IEC 61850-3 / IEEE 1613	√	-	-	-
EN 50155 / EN 50121-4	EN 50121-4	-	-	-
UL 508 / UL 61010	-	-	-	-
UL 60950 / UL 62368	-	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Commercial Ethernet >>



Model Name	EX25611	EX16926	EX16916	EX16900
Interface				
Max. Total Ports	28	26	16	8
Max. 10/100BASE-TX	-	-	-	-
Max. 10/100/1000BASE-T	24	24	16	5 / 8
Max. 100BASE-FX	-	-	-	-
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	1
Max. 1000BASE-SFP	4 (Combo)	2	-	1
Max. 10 Gigabit SFP+	4	-	-	-
PoE Ports	-	-	-	-
PoE Power Budget	-	-	-	-
RS-232 Console Port	√	-	-	-
Alarm Contact	-	-	-	-
Performance				
MAC Address Table Size	32K	4K	8K	2048 / 4096
Packet Buffer Memory (bits)	256M	4.1M	256K	1M / 192K
Jumbo Frame (bytes)	-	10K	9K	9K / 9720
Mechanical				
Casing	Metal	Metal	Metal	Metal
Installation*	R	R	R, W	Desktop
Dimensions (mm) (W x D x H)	442 x 300 x 44	441 x 131 x 44	216 x 133 x 42	160 x 80.5 x 28
Power Input				
No. of Power Inputs	1	1	1	1
110 - 240VAC	√	√	√	-
Terminal Block	-	-	-	-
DC Jack	-	-	-	5VDC
AC to DC Adapter	-	-	-	√
Operating Temperature				
0 to 45°C (32 to 113°F)	0 to 40°C (32 to 104°F)	0 to 50°C (32 to 122°F)	0 to 50°C (32 to 122°F)	√
-10 to 60°C (14 to 140°F)	-	-	-	-
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	√	-	-	-
Network Management & Control				
Layer 2	√	-	-	-
Web-Smart	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50121-4	-	-	-	-
UL 60950	-	-	-	-
Network Management Software				
eVue**	√	-	-	-

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

** Status Monitoring only and limited function support.

Managed Ethernet Switches >>

EN 50121-4

NEW

 OSPF VRRP
 60W PoE DI/DO


EN 50121-4

NEW

 60W PoE
 OSPF VRRP

 60W PoE
 OSPF VRRP
 DI/DO


60W PoE



Model Name	EX75900	EX78900	EX78900E	EX78162	EX78000
Interface					
Max. Total Ports	28	16	16	18	12
Max. 10/100BASE-TX	-	-	-	16	8
Max. 10/100/1000BASE-T	24	12	12	-	2
Max. 100BASE-FX	-	-	-	-	4
Max. 100BASE-SFP	-	-	4	-	2
Max. 1000BASE-SX/LX/BX	-	4	-	-	2
Max. 1000BASE-SFP	4	4	4	2	2
Max. 10 Gigabit SFP+	4	-	-	-	-
PoE Ports	24 (60W)	8 (60W)	12 (8 x 30W, 4 x 60W)	16 (30W)	8 (60W)
PoE Power Budget	720W	240W	240W	240W	240W
RS-232 Console Port	√	√	√	√	√
Alarm Contact	√	√	√	√	√
Digital Input	2	-	2	-	-
Performance					
MAC Address Table Size	16K	16K	16K	8192	16K
Packet Buffer Memory (bits)	12M	12M	12M	2M	12M
Jumbo Frame (bytes)	9216	9216	9216	-	-
Mechanical					
Casing	Metal	Aluminum	Aluminum	Aluminum	Aluminum
Installation*	R	D, P	D, P	D, P	D, P
Dimensions (mm) (W x D x H)	442 x 270 x 44.2	72 x 140 x 170	72 x 140 x 170	71.4 x 140 x 170	71.4 x 140 x 170
Power Input					
No. of Power Inputs	2	2	2	2	2
110 - 240VAC	-	-	-	-	-
Terminal Block	52 - 57VDC	52 - 57VDC	52 - 57VDC	52 - 57VDC	52 - 57VDC
DC Jack	-	-	-	-	-
AC to DC Adapter	-	-	-	-	-
Operating Temperature					
-10 to 60°C (14 to 140°F)	-	-	-	-	-
-40 to 75°C (-40 to 167°F)	√	√	√	√	√
Network Redundancy					
Alpha-Ring / Alpha-Chain	√	√	√	√	√
STP / RSTP / MSTP	√	√	√	√	√
Network Management & Control					
Layer 2	√	-	-	√	√
Layer 3 Routing	√	√	√	-	-
Regulatory Approvals					
CE / FCC / VCCI	√	√	√	√	√
ISA 12.12.01	-	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-	-
EN 50155 / EN 50121-4	EN 50121-4	-	EN 50121-4	-	-
UL 508 / UL 61010	-	UL 61010	UL 61010	-	UL 61010
UL 60950 / UL 62368	UL 62368	-	-	-	-
NEMA TS2	√	√	√	-	√
Network Management Software					
eVue	√	√	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Managed Ethernet Switches >>



Model Name	EX46100	EX48000	EX38000	EX26262F	EX24402
Interface					
Max. Total Ports	8	5	5	26	18
Max. 10/100BASE-TX	8	5	5	-	16
Max. 10/100/1000BASE-T	-	-	-	24	2
Max. 100BASE-FX	2	1	1	-	-
Max. 100BASE-SFP	-	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	-	-
Max. 1000BASE-SFP	-	-	-	2 (Combo)	2
Max. 10 Gigabit SFP+	-	-	-	-	-
PoE Ports	4 (30W)	4 (30W)	4 (30W)	24 (30W)	16 (15.4W)
PoE Power Budget	120W	120W	120W	370W	195W
RS-232 Console Port	-	-	-	-	√
Alarm Contact	√	√	√	-	√
Performance					
MAC Address Table Size	1024	1024	1024	8192	8192
Packet Buffer Memory (bits)	1M	512K	512K	512K	2M
Jumbo Frame (bytes)	-	-	-	9216	-
Mechanical					
Casing	Aluminum	Aluminum	Metal	Metal	Metal
Installation*	D, P, R	Desktop, W, D	Desktop, W, D	R	R
Dimensions (mm) (W x D x H)	68 x 135 x 110	200 x 134 x 35	200 x 134.3 x 35	442 x 211 x 44	443.6 x 285 x 44
Power Input					
No. of Power Inputs	3	3	3	1	1
110 - 240VAC	-	-	-	√	√
Terminal Block	47 - 57VDC	47 - 57VDC	47 - 57VDC	-	-
DC Jack	47 - 57VDC	47 - 57VDC	47 - 57VDC	-	-
AC to DC Adapter	-	-	-	-	-
Operating Temperature					
-10 to 60°C (14 to 140°F)	-	-	√	√	√
-40 to 75°C (-40 to 167°F)	√	√	-	-	-
Network Redundancy					
Alpha-Ring / Alpha-Chain	-	-	-	-	-
STP / RSTP / MSTP	-	-	-	√	-
Network Management & Control					
Layer 2	System, IP Configuration, VLAN, QoS, Web Management		-	√	√
Layer 3 Routing			-	-	-
Regulatory Approvals					
CE / FCC / VCCI	√	√	√	√	√
ISA 12.12.01	-	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-	-
EN 50155 / EN 50121-4	-	-	-	-	-
UL 508 / UL 61010	-	-	-	-	-
UL 60950 / UL 62368	-	-	-	UL 60950	-
Network Management Software					
eVue**	-	-	-	√	-

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

** Status Monitoring only and limited function support.

Managed Ethernet Switches >>



Model Name	EX17242	EX17162	EX17016
Interface			
Max. Total Ports	26	18	16
Max. 10/100BASE-TX	24	16	16
Max. 10/100/1000BASE-T	2	2	-
Max. 100BASE-FX	-	-	-
Max. 100BASE-SFP	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-
Max. 1000BASE-SFP	2 (Combo)	2 (Combo)	-
Max. 10 Gigabit SFP+	-	-	-
PoE Ports	24 (30W)	16 (30W)	16 (15.4W)
PoE Power Budget	369.6W	246.4W	240W
RS-232 Console Port	-	-	-
Alarm Contact	-	-	-
Performance			
MAC Address Table Size	4096	4096	4096
Packet Buffer Memory (bits)	2.75M	2.75M	1.625M
Jumbo Frame (bytes)	-	-	-
Mechanical			
Casing	Metal	Metal	Metal
Installation*	R	R	R
Dimensions (mm) (W x D x H)	440 x 330 x 44	440 x 330 x 44	440 x 220 x 44
Power Input			
No. of Power Inputs	1	1	1
110 - 240VAC	√	√	√
Terminal Block	-	-	-
DC Jack	-	-	-
AC to DC Adapter	-	-	-
Operating Temperature			
0 to 45°C (32 to 113°F)	√	√	√
-10 to 60°C (14 to 140°F)	-	-	-
Network Redundancy			
Alpha-Ring / Alpha-Chain	-	-	-
STP / RSTP / MSTP	-	-	-
Network Management & Control			
Layer 2	-	-	-
Web-Smart	√	√	√
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-
EN 50121-4	-	-	-
UL 60950	√	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Managed Ethernet Switches >>



Model Name	EX17008	EX17082	EX17908
Interface			
Max. Total Ports	8	10	8
Max. 10/100BASE-TX	8	8	-
Max. 10/100/1000BASE-T	-	2	8
Max. 100BASE-FX	-	-	-
Max. 100BASE-SFP	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-
Max. 1000BASE-SFP	-	2 (Combo)	-
Max. 10 Gigabit SFP+	-	-	-
PoE Ports	8 (30W)	8 (30W)	8 (30W)
PoE Power Budget	120W	240W	240W
RS-232 Console Port	-	-	-
Alarm Contact	-	-	-
Performance			
MAC Address Table Size	4096	4096	8192
Packet Buffer Memory (bits)	1.625M	2.75M	2M
Jumbo Frame (bytes)	-	-	-
Mechanical			
Casing	Metal	Metal	Metal
Installation*	Desktop	R	R
Dimensions (mm) (W x D x H)	266 x 160 x 44	440 x 220 x 44	266 x 160 x 44
Power Input			
No. of Power Inputs	1	1	1
110 - 240VAC	√	√	√
Terminal Block	-	-	-
DC Jack	-	-	-
AC to DC Adapter	-	-	-
Operating Temperature			
0 to 45°C (32 to 113°F)	√	√	0 to 40°C (32 to 104°F)
-10 to 60°C (14 to 140°F)	-	-	-
Network Redundancy			
Alpha-Ring / Alpha-Chain	-	-	-
STP / RSTP / MSTP	-	-	-
Network Management & Control			
Layer 2	-	-	-
Web-Smart	√	√	√
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-
EN 50121-4	-	-	-
UL 60950	√	√	-

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

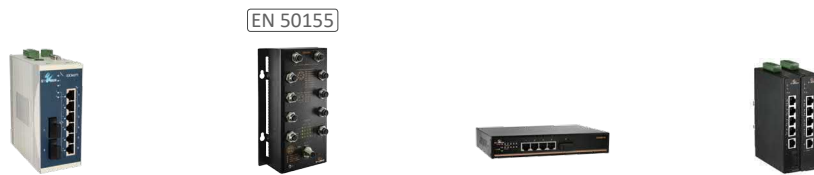
Unmanaged Ethernet Switches >>



Model Name	EX46900A	EX45900	EX41922-T	EX45000
Interface				
Max. Total Ports	10	6	4	8
Max. 10/100BASE-TX	-	-	-	8
Max. 10/100/1000BASE-T	8	5	2	-
Max. 100BASE-FX	-	-	-	2
Max. 100BASE-SFP	-	-	2	-
Max. 1000BASE-SX/LX/BX	2	1	-	-
Max. 1000BASE-SFP	2	1	2	-
PoE Ports	8 (30W)	4 (30W)	2 (30W)	4 (15.4W)
PoE Power Budget	120W	120W	60W	61.6W
RS-232 Console Port	-	-	-	-
Alarm Contact	√	√	√	√
Performance				
MAC Address Table Size	8192	8192	8K	1024
Packet Buffer Memory (bits)	4M	1M	1M	1M
Jumbo Frame (bytes)	9.6K	10K	10K	-
Mechanical				
Casing	Aluminum	Metal	Metal	Aluminum
Installation*	D	D	D	D, P, R
Dimensions (mm) (W x D x H)	66.8 x 125 x 145	30 x 100 x 149	36 x 90 x 100	68 x 110 x 135
Power Input				
No. of Power Inputs	2	2	2	2
110 - 240VAC	-	-	-	-
Terminal Block	18 - 57VDC	18 - 57VDC	52 - 57VDC	47 - 57VDC
DC Jack	-	-	-	47 - 57VDC
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	-	-	-
-40 to 75°C (-40 to 167°F)	√	√	√	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
E Mark	√	-	-	-
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	-	-	-
UL 508 / UL 61010	UL 508	-	UL 61010	-
UL 60950 / UL 62368	-	√	-	-

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Unmanaged Ethernet Switches >>



Model Name	EX34000	ER52000	EX48000A	EX42300
Interface				
Max. Total Ports	8	10	5	6
Max. 10/100BASE-TX	8	8 (M12)	5	4
Max. 10/100/1000BASE-T	-	2 (M12) Bypass	-	1
Max. 100BASE-FX	2	-	1	-
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	1
Max. 1000BASE-SFP	-	-	-	1
PoE Ports	4 (15.4W)	8 (30W)	4 (15.4W)	4 (30W)
PoE Power Budget	61.6W	120W	61.6W	120W
RS-232 Console Port	-	-	-	-
Alarm Contact	√	-	√	√
Performance				
MAC Address Table Size	1024	8192	1024	8192
Packet Buffer Memory (bits)	1M	4M	512K	1M
Jumbo Frame (bytes)	-	9.6K	-	10K
Mechanical				
Casing	Metal	Aluminum	Metal	Metal
Installation*	D, P, R	W	Desktop, W, D	D
Dimensions (mm) (W x D x H)	62 x 110 x 135	140 x 228 x 65.8	200 x 134.3 x 35	30 x 100 x 149
Power Input				
No. of Power Inputs	3	2	3	2
110 - 240VAC	-	-	-	-
Terminal Block	47 - 57VDC	72 - 110VDC (M12)	47 - 57VDC	24 / 48VDC
DC Jack	47 - 57VDC	-	47 - 57VDC	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	√	-	-	-
-40 to 75°C (-40 to 167°F)	-	√	√	√
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	EN 50155	-	-
UL 508 / UL 61010	-	-	-	-
UL 60950 / UL 62368	-	-	-	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Unmanaged Ethernet Switches >>



Model Name	EX17908A	EX17162A	EX17082A	EX17008A
Interface				
Max. Total Ports	8	18	10	8
Max. 10/100BASE-TX	-	16	8	8
Max. 10/100/1000BASE-T	8	2	2	-
Max. 100BASE-FX	-	-	-	-
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	-
Max. 1000BASE-SFP	-	2 (Combo)	-	-
PoE Ports	8 (30W)	16 (30W)	8 (30W)	8 (30W)
PoE Power Budget	240W	240W	240W	120W
RS-232 Console Port	-	-	-	-
Alarm Contact	-	-	-	-
Performance				
MAC Address Table Size	8192	4096	4096	4096
Packet Buffer Memory (bits)	2M	2.75M	2.75M	1.625M
Jumbo Frame (bytes)	-	-	-	-
Mechanical				
Casing	Metal	Metal	Metal	Metal
Installation*	Desktop	R	R	Desktop
Dimensions (mm) (W x D x H)	266 x 160 x 44	440 x 330 x 44	440 x 220 x 44	266 x 160 x 44
Power Input				
No. of Power Inputs	1	1	1	1
110 - 240VAC	√	√	√	√
Terminal Block	-	-	-	-
DC Jack	-	-	-	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	0 to 40°C (32 to 104°F)	√	√	√
-40 to 75°C (-40 to 167°F)	-	-	-	-
Network Redundancy				
Alpha-Ring / Alpha-Chain	-	-	-	-
STP / RSTP / MSTP	-	-	-	-
Network Management & Control				
Layer 2	-	-	-	-
Layer 3 Routing	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-	-
EN 50155 / EN 50121-4	-	-	-	-
UL 508 / UL 61010	-	-	-	-
UL 60950 / UL 62368	-	UL 60950	UL 60950	UL 60950

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial Media Converters >>



Model Name	EL2242	EL1032T
Interface		
Max. 100BASE-T	-	-
Max. 10/100BASE-TX	-	1
Max. 1000BASE-T	-	-
Max. 10/100/1000BASE-T	1	-
Max. 100BASE-FX/BX WDM	-	1
Max. 100BASE-SFP	1	-
Max. 1000BASE-SX/LX/BX	-	-
Max. 1000BASE-SFP	1	-
Max. PoE Ports	PSE (30W)	PSE (30W)
Web Management	-	-
Alarm Contact	√	-
Mode of Operations		
Auto-negotiation, Auto-MDI/MDI-X	√	√
Flow Control	√	√
Store & Forward	√	√
Link Fault Pass Through	√	√
Mechanical		
Casing	Aluminum	Aluminum
Installation*	D	D, P
Dimensions (mm) (W x D x H)	42 x 90 x 100	70 x 110 x 30
Power Input		
No. of Power Inputs	2	2
Terminal Block	48 - 57VDC	48 - 57VDC
DC Jack	-	48VDC
AC to DC Adapter	-	-
Operating Temperature		
-10 to 60°C (14 to 140°F)	-	√
-40 to 75°C (-40 to 167°F)	√	-
Regulatory Approvals		
CE / FCC / VCCI	√	√
ISA 12.12.01 / UL 1604	-	-
IEC 61850-3	-	-
EN 50121-4	-	-
UL 508 / UL 61010	-	-
UL/cUL 60950-1	√	-

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Ethernet Switches

PoE Solutions

Media Converters

Ethernet Extenders

Cellular Gateways

Accessories

Long Reach Power over Link >>



Model Name	ED3538	ED3638	ED3238
Interface			
10/100BASE-TX	1	1	1
Max. 10/100/1000BASE-T	-	-	-
Max. 100/1000BASE-SFP	-	-	-
Max. PoE Ports	1 (30W)	1 (30W)	1 (15.4W)
Extension Interface			
RJ-11	1	-	-
Terminal Block	1	-	-
BNC	-	1	1
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	√	√	√
Store & Forward	√	√	√
Mechanical			
Casing	Aluminum	Aluminum	Aluminum
Installation*	D	D	C
Dimensions (mm) (W x D x H)	50 x 110 x 135	50 x 110 x 135	46 x 98 x 25
Power Input			
No. of Power Inputs	3	3	1
Terminal Block	46 - 57VDC	46 - 57VDC	-
DC Jack	48VDC	48VDC	57VDC
AC to DC Adapter	-	-	√
Operating Temperature			
-10 to 60°C (14 to 140°F)	-	-	-10 to 50°C (14 to 122°F)
-40 to 75°C (-40 to 167°F)	√	√	-
Management Function			
RS-232 Console Port	-	-	-
Web Management	-	-	-
Alpha-Ring / Alpha-Chain	-	-	-
Layer 2 Features**	-	√	-
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	-	-
IEC 61850-3 / IEEE 1613	-	-	-
UL 508	-	-	-
UL/cUL 60950-1	√	√	√
EN 50155 / EN 50121-4	-	-	-

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

** Layer 2 Features include STP/RSTP/MSTP, VLAN, QoS, IGMP, GMRP, Bandwidth Rate Control, LACP, Port Trunking, Port Mirroring, Packet Filtering, IEEE 802.1xSecurity, RMON.

Hardened & Industrial >>



Model Name	EL9020	EL9100	EL9000	EL8020	EL8100	EL8000
Interface						
Max. 100BASE-T	-	-	-	-	-	-
Max. 10/100BASE-TX	-	-	-	-	-	-
Max. 1000BASE-T	-	-	1	-	-	1
Max. 10/100/1000BASE-T	1	1	-	1	1	-
Max. 100BASE-FX/BX WDM	-	-	-	-	-	-
Max. 100BASE-SFP	-	-	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	1	1	-	1	1
Max. 1000BASE-SFP	1	-	-	1	-	1
Max. PoE Ports	-	-	-	-	-	-
Web Management	-	-	-	-	-	-
Alarm Contact	√	√	√	√	√	√
Mode of Operations						
Auto-negotiation, Auto-MDI/MDI-X	√	√	-	√	√	-
Flow Control	-	-	-	-	-	-
Store & Forward	-	-	-	-	-	-
Link Fault Pass Through	√	√	√	√	√	√
Mechanical						
Casing	Aluminum	Aluminum	Aluminum	Metal	Metal	Metal
Installation*	D, P, R	D, P, R	D, P, R	D	D	D
Dimensions (mm) (W x D x H)	50 x 110 x 135	50 x 110 x 135	50 x 110 x 135	35.8 x 90 x 100	35.8 x 90 x 100	35.8 x 90 x 100
Power Input						
No. of Power Inputs	2 / 1	2 / 1	2 / 1	2	2	2
Terminal Block	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	12VDC	12VDC	12VDC	-	-	-
AC to DC Adapter	-	-	-	-	-	-
Operating Temperature						
-10 to 60°C (14 to 140°F)	-	-	-	-	-	-
-40 to 75°C (-40 to 167°F)	√	√	√	√	√	√
Regulatory Approvals						
CE / FCC / VCCI	√	√	√	√	√	√
ISA 12.12.01 / UL 1604	√	√	√	-	-	-
EN 50121-4	-	-	-	-	-	-
UL 508 / UL 61010	-	-	-	UL 61010	UL 61010	UL 61010
UL/cUL 60950-1	√	√	√	-	-	-

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Hardened & Industrial >>

IEC 61850-3
EN 50121-4



ISA 12.12.01



IEC 61850-3
EN 50121-4



Model Name	EL1142	EL900	EL1141	EX42011
Interface				
Max. 100BASE-T	-	-	-	-
Max. 10/100BASE-TX	2	1	1	1
Max. 1000BASE-T	-	-	-	-
Max. 10/100/1000BASE-T	-	-	-	-
Max. 100BASE-FX/BX WDM	2	1	1	1
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-	-
Max. 1000BASE-SFP	-	-	-	-
Max. PoE Ports	-	-	-	-
Web Management	-	-	-	-
Alarm Contact	√	√	√	-
Mode of Operations				
Auto-negotiation, Auto-MDI/MDI-X	√	√	√	√
Flow Control	√	√	√	√
Store & Forward	√	√	√	√
Link Fault Pass Through	√	√	√	-
Mechanical				
Casing	Aluminum	Aluminum	Aluminum	Plastic
Installation*	D	D, P, R	D	D
Dimensions (mm) (W x D x H)	50 x 110 x 135	50 x 110 x 135	50 x 110 x 135	26 x 110 x 70
Power Input				
No. of Power Inputs	2	2 / 1	3	1
Terminal Block	12 - 48VDC	10 - 48VDC	12 - 48VDC	12 - 48VDC
DC Jack	-	12VDC	12VDC	-
AC to DC Adapter	-	-	-	-
Operating Temperature				
-10 to 60°C (14 to 140°F)	-	-	-	√
-40 to 75°C (-40 to 167°F)	√	√	√	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	√	-	-
IEC 61850-3	√	-	√	-
EN 50121-4	√	-	√	-
UL 508 / UL 61010	UL 61010	-	UL 508	-
UL/cUL 60950-1	-	√	-	√

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Commercial >>



Model Name	EL2321	EL2211	EL2315	EM1000S EM2000S
Interface				
Max. 100BASE-T	-	-	-	-
Max. 10/100BASE-TX	-	-	-	-
Max. 1000BASE-T	-	-	-	-
Max. 10/100/1000BASE-T	1	1	1	-
Max. 100BASE-FX/BX WDM	1	-	-	-
Max. 100BASE-SFP	-	-	1	-
Max. 1000BASE-SX/LX/BX	1	1	-	2
Max. 1000BASE-SFP	-	-	1	-
Max. PoE Ports	-	-	-	-
Web Management	√	-	-	-
Alarm Contact	-	-	-	-
Mode of Operations				
Auto-negotiation, Auto-MDI/MDI-X	√	√	√	-
Flow Control	√	√	√	-
Store & Forward	√	√	√	-
Link Fault Pass Through	√	√	√	-
Mechanical				
Casing	Aluminum	Aluminum	Aluminum	Aluminum
Installation*	C, W	C, W	C, W	C, W
Dimensions (mm) (W x D x H)	80.3 x 109.2 x 23.8	80.3 x 109.2 x 23.8	80.3 x 109.2 x 23.8	80.3 x 109.2 x 23.8
Power Input				
No. of Power Inputs	1	1	1	1
Terminal Block	-	-	-	-
DC Jack	12VDC	12VDC	12VDC	12VDC
AC to DC Adapter	√	√	√	√
Operating Temperature				
0 to 45°C (32 to 113°F)	√	√	√	√
-10 to 60°C (14 to 140°F)	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
EN 50121-4	-	-	-	-
UL 508 / UL 61010	-	-	-	-
UL/cUL 60950-1	-	√	-	-

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Commercial >>



Model Name	EL2326	EL2326L	EL100/EL110	EL200/EL210
Interface				
Max. 100BASE-T	-	-	1	1
Max. 10/100BASE-TX	-	-	1	1
Max. 1000BASE-T	-	-	-	-
Max. 10/100/1000BASE-T	1	1	-	-
Max. 100BASE-FX/BX WDM	-	-	1 FX	1 WDM
Max. 100BASE-SFP	-	-	-	-
Max. 1000BASE-SX/LX/BX	1 (Dual Rate)	1	-	-
Max. 1000BASE-SFP	-	-	-	-
Max. PoE Ports	-	-	-	-
Web Management	-	-	-	-
Alarm Contact	-	-	-	-
Mode of Operations				
Auto-negotiation, Auto-MDI/MDI-X	√	√	√	√
Flow Control	√	√	√	√
Store & Forward	√	√	√	√
Link Fault Pass Through	√	√	√	√
Mechanical				
Casing	Metal	Metal	Aluminum	Aluminum
Installation*	D	D	C, W	C, W
Dimensions (mm) (W x D x H)	100 x 122 x 32.5	100 x 122 x 32.5	80.3 x 109.2 x 23.8	80.3 x 109.2 x 23.8
Power Input				
No. of Power Inputs	1	1	1	1
Terminal Block	-	-	-	-
DC Jack	12VDC	12VDC	12VDC	12VDC
AC to DC Adapter	-	-	√	√
Operating Temperature				
0 to 45°C (32 to 113°F)	-5 to 55°C (23 to 131°F)	-5 to 55°C (23 to 131°F)	√	√
-10 to 60°C (14 to 140°F)	-	-	-	-
Regulatory Approvals				
CE / FCC / VCCI	√	√	√	√
ISA 12.12.01 / UL 1604	-	-	-	-
EN 50121-4	-	-	-	-
UL 508 / UL 61010	-	-	-	-
UL/cUL 60950-1	-	-	√	√

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Commercial >>



Model Name	EL1216	EM120	EL50
Interface			
Max. 100BASE-T	-	-	-
Max. 10/100BASE-TX	1	-	1
Max. 1000BASE-T	-	-	-
Max. 10/100/1000BASE-T	-	-	-
Max. 100BASE-FX/BX WDM	1	2	1
Max. 100BASE-SFP	-	-	-
Max. 1000BASE-SX/LX/BX	-	-	-
Max. 1000BASE-SFP	-	-	-
Max. PoE Ports	-	-	-
Web Management	-	-	-
Alarm Contact	-	-	-
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	√	-	√
Flow Control	√	-	√
Store & Forward	√	-	√
Link Fault Pass Through	√	-	-
Mechanical			
Casing	Metal	Aluminum	Metal
Installation*	D	C, W	W
Dimensions (mm) (W x D x H)	100 x 122 x 32.5	80.3 x 109.2 x 23.8	54.2 x 80.3 x 21.9
Power Input			
No. of Power Inputs	1	1	1
Terminal Block	-	-	-
DC Jack	12VDC	12VDC	12VDC
AC to DC Adapter	-	√	√
Operating Temperature			
0 to 45°C (32 to 113°F)	0 to 50°C (14 to 122°F)	√	√
-10 to 60°C (14 to 140°F)	-	-	-
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	-	-
EN 50121-4	-	-	-
UL 508	-	-	-
UL/cUL 60950-1	-	-	√

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Multiple Channel Chassis >>



Model Name	EMC1600	EMC1200R	EMC400
Interface			
Max. 100BASE-T	16	12	4
Max. 10/100BASE-TX	16	12	4
Max. 1000BASE-T	16	12	4
Max. 10/100/1000BASE-T	16	12	4
Max. 100BASE-FX/BX WDM	32	24	8
Max. 100BASE-SFP	16	12	4
Max. 1000BASE-SX/LX/BX	32	24	8
Max. 1000BASE-SFP	16	12	4
Max. PoE Ports	-	-	-
Web Management	-	-	-
Alarm Contact	-	-	-
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	√	√	√
Flow Control	√	√	√
Store & Forward	√	√	√
Link Fault Pass Through	√	√	√
Mechanical			
Casing	Metal	Metal	Metal
Installation*	R	R	D
Dimensions (mm) (W x D x H)	440 x 276 x 90	440 x 243 x 45	130 x 164 x 92
Power Input			
No. of Power Inputs	2	2	2
100 - 240VAC	√	√	-
Terminal Block	±48VDC	±48VDC	12VDC
DC Jack	-	-	-
AC to DC Adapter	-	-	-
Operating Temperature			
0 to 45°C (32 to 113°F)	√	√	√
-10 to 60°C (14 to 140°F)	-	-	-
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	-	-
EN 50121-4	-	-	-
UL 508	-	-	-
UL/cUL 60950-1	√	-	√

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Long Reach Ethernet over Copper Pairs >>



Model Name	ED3575	ED3541	ED3501
Interface			
10/100BASE-TX	6	1	1
Max. 10/100/1000BASE-T	2	-	-
Max. 100/1000BASE-SFP	2	-	-
Max. PoE Ports	-	-	-
Extension Interface			
RJ-11	2	1	1
Terminal Block	2	1	1
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	√	√	√
Store & Forward	√	√	√
Mechanical			
Casing	Aluminum	Aluminum	Aluminum
Installation*	D	D	C, D, W
Dimensions (mm) (W x D x H)	73 x 125 x 145	42 x 90 x 100	80.3 x 109.2 x 23.8
Power Input			
No. of Power Inputs	2	2	1
Terminal Block	12 - 48VDC	12 - 48VDC	-
DC Jack	-	-	12VDC
AC to DC Adapter	-	-	√
Operating Temperature			
-10 to 60°C (14 to 140°F)	-	-	√
-40 to 75°C (-40 to 167°F)	√	√	-
Management Function			
RS-232 Console Port	√	-	-
Web Management	√	-	-
Alpha-Ring / Alpha-Chain	√	-	-
Layer 2 Features**	√	-	-
Regulatory Approvals			
CE / FCC / VCCI	√	√	√
ISA 12.12.01 / UL 1604	-	√	-
ATEX	-	√	-
IEC 61850-3 / IEEE 1613	-	-	-
UL 508 / UL 61010	UL 61010	-	-
UL/cUL 60950-1	-	√	√
EN 50155 / EN 50121-4	-	-	-
Network Management Software			
eVue***	√	-	-

* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

** Layer 2 Features include STP/RSTP/MSTP, VLAN, QoS, IGMP, GMRP, Bandwidth Rate Control, LACP, Port Trunking, Port Mirroring, Packet Filtering, IEEE 802.1xSecurity, RMON.

*** Status Monitoring only and limited function support.

Rediscover Data From The Edge

EtherWAN aims to utilize IoT technologies to support the digital transformation of various industrial vertical markets. We provide comprehensive IoT connectivity products and solutions to provide advanced features such as edge computing capabilities, reduced cloud-end computing resources, data optimization, and model analysis on the edge.

Low-power wide-area technologies deliver best-in-class power savings. Reliable and agile connection with comprehensive data security ensures connective quality and stability.

Internet of Things



Edge Computing



Cloud



IoT LPWA Solution



EDGE 1



EDGE 2



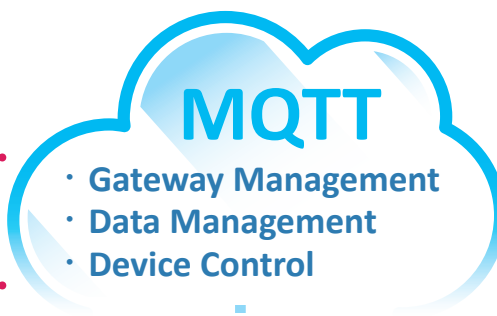
AIR PACE



Environment Monitoring Dashboard



Remote Control Interface



Rugged Industrial Design

Secure Remote Access

Easy Management

Multiple I/O



EW50 EW200



Industrial Cellular Gateways >>



Model Name	EW50	EW200
Wireless-Cellular (WAN)		
Cellular Data Rate (Max.)	4G LTE: LTE FDD: 150Mbps down; 50Mbps up / LTE TDD: 130Mbps down; 35Mbps up 3G: WCDMA: 42Mbps down; 5.76Mbps up 2G: GSM/EDGE: 236.8Kbps down & up	
LTE Modem	1	1
SIM Slot	2	2
Antenna Connector	2 x SMA Female	2 x SMA Female
Wireless-Wi-Fi		
WLAN	-	802.11ac/b/g/n 2T2R (5GHz/2.4GHz Selectable)
Antenna Connector	-	2 x SMA Male
Ports		
Ethernet Ports	2 x RJ-45 GE	4 (5) x RJ-45 GE
Digital I/O	1 x DI ("Logic 0": 0-2V, "Logic 1": 5-30V), 1 x DO (Relay Mode, up to 30V / 1A)	1 x DI ("Logic 0": 0-2V, "Logic 1": 5-30V), 1 x DO (Relay Mode, up to 30V / 1A)
Serial Port	2 x RS-232 / RS-485 (4-pin Terminal Block)	1 x RS-232 / RS-485 (4-pin Terminal Block)
Log Storage	1 x Micro-SD, 1 x USB 2.0	1 x USB 2.0
Power Source	1 x DC 9-36V (Max. 7W)	2 x DC 12-48V (Max. 25W)
Function		
VPN	IPSec, OpenVPN, PPTP, L2TP, GRE; Up to 16 concurrent tunnels with max 70Mbps throughput (IPSec)	IPSec, OpenVPN, PPTP, L2TP, GRE; Up to 16 concurrent tunnels with max 100Mbps throughput (IPSec)
NAT / Port Forwarding	NAT, NATP with IP port forwarding	NAT, NATP with IP port forwarding
SNMP	Supports v1, v2c, v3	Supports v1, v2c, v3
VLAN	√	√
QoS	Policy-based Bandwidth Control and Packet Flow Prioritization	
Virtual COM	RFC2217, TCP Client, TCP Server, UDP	
Access Control	Packet Filter, URL Blocking, MAC Filter	
Firewall	SPI Firewall with Stealth Mode, IPS	
Protocol		
Routing Protocols	Static, Dynamic: RIP v1/v2, OSPF, BGP	
Cloud Connectivity	-	MQTT
Modbus	Modbus Slave; Modbus Gateway for Modbus TCP, Modbus RTU/ASCII Master/Slave Access	
Management		
Schedule for Function	√	√
Event Engine	Notifying Events; DI, DO, Modbus, SMS, Syslog, SNMP Trap, Email Alert, Reboot	
Mechanical		
Installation*	D	D
Dimensions (mm) (W x D x H)	31 x 99 x 131 (w/o mounting kit) 31 x 108 x 131 (with DIN-Rail kit)	62 x 125 x 160 (w/o mounting kit) 62 x 135 x 160 (with DIN-Rail kit)
Operating Temperature		
-30 to 70°C (-22 to 158°F)	√	√
Regulatory Approvals		
FCC / CE / VCCI / NCC / RCM / NBTC	√	CE / NCC BSMI / NBTC
EN 60950-1 / EN 62368-1: 2014	√	√
Network Management Software		
eVue**	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

** Status Monitoring only and limited function support.

Industrial Smart IoT Edge Computing Gateway >>



	LTE Version	LoRa Version
Model Name	AiR PACE 1-XX-CX	AiR PACE 1-XX-CL
Wireless-Cellular (WAN)		
LTE Modem	1	1
Antenna Connector	Cellular 2 x SMA Female (Main & Aux.)	Cellular 2 x SMA Female (Main & Aux.)
Wireless-LPWA		
LoRa	-	LoRa Module for AiR PACE 1-XX-CL Series 8 Channel LoRa Module
Antenna Connector	-	LoRa 1 x SMA Female
Interfaces		
Ethernet Ports	2(3) x RJ-45 port GbE	2(3) x RJ-45 port GbE
Digital I/O	2 x AI (Conversion: 12bit ADC; Input Range: 0-10V; Resolution: 2.5mV; Dynamic Range: 72dB; Sample Rate: Up to 125KHz), 2 x DI (Isolated; "Logic 0": 0-2V, "Logic 1": 5-30V), 2 x DO (Isolated; Non-Relayed Output, 24V/300mA for each port)	
Serial Port	2 x RS-232 / RS-485 (4-pin Terminal Block)	2 x RS-232 / RS-485 (4-pin Terminal Block)
Log Storage	1 x MicroSD Slot for SD 3.0 (SDXC) Compliant Storage Expansion / 1 x USB 2.0	
GNSS	√	√
Software		
VPN	IPSec (Up to 16 Tunnels), OpenVPN, PPTP, L2TP, GRE	
NAT / Port Forwarding	NAT, NATP with IP Port Forwarding	NAT, NATP with IP Port Forwarding
Routing Protocols	Static, Dynamic: RIP v1/v2, OSPF, BGP	Static, Dynamic: RIP v1/v2, OSPF, BGP
SNMP	Supports v1, v2c, v3	Supports v1, v2c, v3
VLAN	√	√
QoS	Policy-based Bandwidth Control and Packet Flow Prioritization	
Virtual COM	RFC2217, TCP Client, TCP Server, UDP	
Modbus	Modbus Slave; Modbus Gateway for Modbus TCP, Modbus RTU/ASCII Master/Slave Access	
Access Control	Packet Filter, URL Blocking, MAC Filter	
Firewall	SPI Firewall with Stealth Mode, IPS	
LoRa	-	LoRa Gateway w/ Network Server Built in
Management		
Schedule for Function	√	√
Event Engine	Notifying Events; DI, DO, Modbus, SMS, Syslog, SNMP Trap, Email Alert, Reboot	
Development Platform		
Development Platform	Python customization Development; Amazon AWS GreenGrass; Microsoft Azure IoT Edge	
Protocols		
Industrial Protocol	Modbus RTU/ASCII, Modbus TCP	
Cloud Connectivity Protocol	MQTT Broker / Client	MQTT Broker / Client
User Application Tool		
Tool	Node-RED	Node-RED
Power Source		
Input Voltage	9 - 36VDC	9 - 36VDC
PoE PD	*Optional	*Optional
Mechanical		
Installation*	D	D
Dimensions (mm) (W x D x H)	40 x 117.8 x 161.3	40 x 117.8 x 161.3
Operating Temperature		
-30 to 70°C (-22 to 158°F)	√	√
Regulatory Approvals		
CE / NCC BSMI / iDA	√	√
EN 60950-1 / EN 62368-1: 2014	√	√

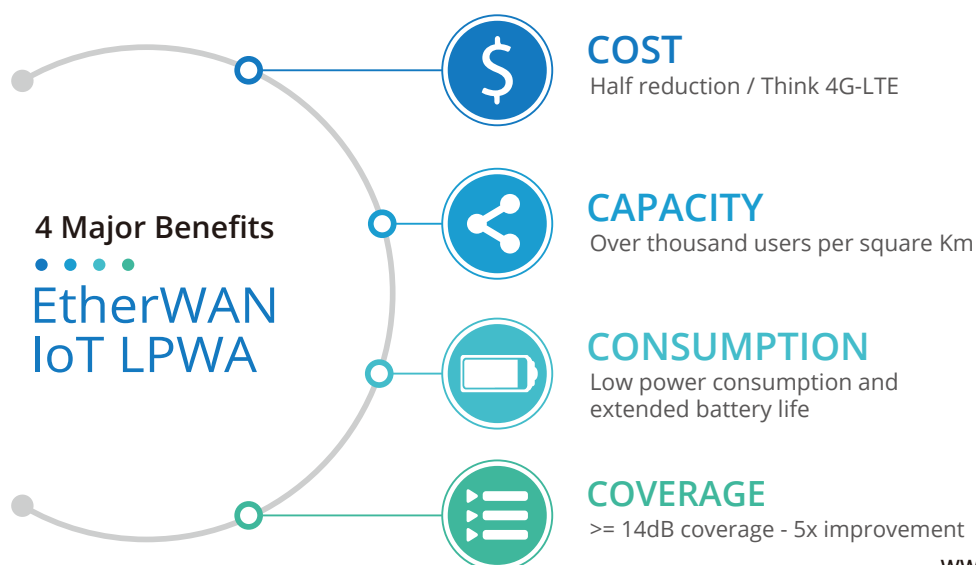
* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

IoT LPWA Solution >>



	Industrial LoRa Edge Node	Industrial LTE-M/NB-IoT Edge Node
Model Name	EDGE 1	EDGE 2
Interfaces		
Wireless	LoRa	LTE Cat. NB1 & Cat. M1
Function	For low power, low data rate IoT Edge Node	For low power, low data rate IoT Edge Node
IEEE Standard	IEEE 802.15.4g LoRa Modulation	LTE Cat. NB1 & Cat. M1
Frequency Band	863-870MHz (EU) / 920-925MHz (APAC)	B1 / B2 / B3 / B4 / B5 / B8 / B12 / B13 / B17 / B18 / B19 / B20 / B25 / B26 / B28 / B66
GNSS	-	-
Network		
Configuration	RS-232	RS-232
Protocol	Modbus RTU (Master)	Modbus RTU (Master), MQTT, TCP, UDP
Analog / Sensor Input		
Channel	3-Ch	3-Ch
Input Type	Voltage, Analog	Voltage, Analog
Input Range	0-10V, 4-20mA	0-10V, 4-20mA
Digital Input		
Channel	2-Ch DI (Supports Pulse, Dry Contact)	2-Ch DI (Supports Pulse, Dry Contact)
Digital Output		
Channel	1-Ch DO (Supports Non-Relayed Output, Maximum 24V/300mA)	
Serial Port		
Port Number	1-port RS-485 for Modbus RTU, 1-port RS-232 for Device Configuration	
Power Input		
Battery Power	4000mAh 3.6V Li-SOCL2 Battery	4000mAh 3.6V Li-SOCL2 Battery
External Power	5 - 12VDC	5 - 12VDC
Mechanical		
Installation*	Bracket	Bracket
Dimensions (mm) (W x D x H)	105 x 55 x 76.47 (Enclosure only), 131.97 x 81 x 76.47 (Including Cable Gland, Brackets)	
Operating Temperature		
-30 to 70°C (-22 to 158°F)	√	√
Regulatory Approvals		
CE / NCC / iDA	CE	√
EN 60950-1 / EN 62368-1: 2014	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting



Surge Protectors >>



Model Name	PD1041	PD3041
Interface		
Max. Continuous Operating Voltage Uc	≤3.3VDC	≤185VDC
Max. Continuous Operating Voltage Uc, PoE	≤3.3VDC (±60VDC / PoE+)	-
Nominal Discharge Surge Current I _N (8/20) μs (Core-Core)	100A	≤5KA
Nominal Discharge Surge Current I _N (8/20) μs (Core-Earth)	2KA (per signal pair)	≤5KA
Total Surge Current (8/20) μs	10KA	10KA
Nominal Pulse Current I _{AN} (Core-Core)	≤40A, (10/700) μs	≤100A, (10/1000) μs
Nominal Pulse Current I _{AN} (Core-Earth)	≤160A, (10/700) μs	≤100A, (10/1000) μs
Connector Input/Output	RJ-45 / RJ-45	RJ-11 / RJ-11 Terminal Block / Terminal Block
Mechanical		
Casing	Aluminum	Aluminum
Installation*	D	D
Dimensions (mm) (W x D x H)	30 x 62.5 x 100	30 x 62.5 x 100
Operating Temperature		
-40 to 75°C (-40 to 167°F)	√	√
Regulatory Approvals		
CE / FCC / VCCI	√	√
UL 497B	√	√
EN / IEC 61643-21	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Power Adapters >>



Model Name	EXGS-120A-48	EX41-136044	EX41-136046	EX41-145044	EX41-145046
Output					
DC Voltage	48VDC	12VDC	12VDC	12VDC	12VDC
Current Range	0 - 2.5A	0 - 3A	0 - 3A	0 - 3.7A	0 - 3.7A
Rated Power	120W	36W	36W	45W	45W
Input					
90 - 264VAC	85 - 264VAC	√	√	√	√
Mechanical					
Casing	Plastic	Aluminum	Aluminum	Aluminum	Aluminum
Installation*	-	W	W	W	W
Operating Temperature					
-30 to 70°C (-22 to 158°F)	√	-	-	-	-
-40 to 75°C (-40 to 167°F)	-	√	√	√	√
Regulatory Approvals					
CE / FCC / PSE	CE / FCC	√	√	CE / FCC	CE / FCC
UL 60950	√	√	√	√	√
Efficiency Level: VI	-	-	-	√	√

* D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

Network Interface Cards >>



Model Name	GE3100	EN400	EN301
Ethernet Interface			
Max. 10/100BASE-TX	-	-	-
Max. 100BASE-FX	-	1	1
Max. 100BASE-SFP	-	1	-
Max. 1000BASE-T	1	-	-
Max. 1000BASE-SX/LX	1	-	-
Max. 1000BASE-SFP	1	-	-
Bus Interface			
PCI Express	√	√	-
PCI	-	-	√
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	√	-	-
Flow Control	√	√	√
Store & Forward	-	-	-
Mechanical			
Dimensions (mm) (L x W)	125 x 121	80 x 119.2 / 117.5 x 119.2	133 x 117.5 / 133 x 80
Management Function			
ACPI*	√	√	√
Wake-on -LAN remote wake-up	√	√	-
IEEE 802.1Q VLAN	√	√	√
IEEE 802.1P Layer 2 Priority Tagging	√	√	√
NDIS5 Checksum Offload	√	√	√
RFC1157 SNMP v1	√	-	-
Preboot Execution Environment	√	-	-
Cable Diagnostic Utility	√ (Only TX model)	-	-
Jumbo Frame	√ (Only TX model)	-	-
Operating Temperature			
0 to 45°C (32 to 113°F)	√	√	√
Driver Support			
Windows	Windows Vista, Windows 2003, Windows XP, Windows 2000 and Windows 7/8	Microsoft Windows 98, Windows ME, Windows XP, Windows 2000, Windows 2003, Windows 2008, Windows Vista and Windows 7	Microsoft Windows 95 (including OSR2), Windows 98 (including SE), Windows ME, Windows 2000, Windows XP, Windows Vista (32bit/64bit), Windows NT 4.0 and Windows 7 (32bit/64bit)
Novell	-	Novell server driver (Support OS 6.x, 5.x), client for DOS (ODLdriver)	Novell Network 3.11, 3.12, 4.x, 5.x, 6.0, Client 32
Unix	Linux 2.4/2.6/3.x	SCO Unix 5.0.6/5.0.7, SCO OpenServer 6, UnixWare 7.1.x, Linux kernel 2.6.x and 2.4.x (Support x86 and x64)	Linux Kernel 2.2.x/2.4.x/2.6.x, SCO UnixWare 7.x/Open Unix 8, SCO UNIX 5.0
Others	Mac OS, 10.4, 10.5, 10.6 and 10.7 (Intel-based)	MacOS 10.4/10.5 on Intel-based Mac computer, 10.6 on Intel-based Mac computer, FreeBSD 7.x/8.0	LAN Manager, LANtastic, PC-NFS, FreeBSD 3.2, 4.0, 4.11, 4.2, 5.x
Regulatory Approvals			
CE / FCC	Class B	Class B	Class B

* Advanced Configuration & Power Interface

Ethernet Switches

PoE Solutions

Media Converters

Ethernet Extenders

Cellular Gateways

Accessories

SFP Transceivers >>



Highlights

- > Used for wide range of fiber applications
- > Optimal performance on EtherWAN switches
- > Fast Ethernet, Gigabit Ethernet, and 10-Gigabit Ethernet options available
- > Multi-mode and Single-mode fiber modules available
- > Hot-pluggable for instant operation
- > Enhanced Digital Diagnostic Monitoring available for models marked "DDM" to provide real-time diagnostic information

Specifications

Regulatory Compliance

- > Compliant with Multi-Sourcing Agreement (MSA) Small Form Factor Pluggable (SFP)
- > Eye Safety: Compliant with Class 1 laser safety requirements EN 60825-1
- > Environmental: RoHS compliant, lead-free
- > EMC: FCC part 15, CENELEC EN 55022

Power Supply Voltage

- > Single +3.3V

Operating Temperature

- > Hardened: -40 to 85°C (-40 to 185°F)
- > Non-Hardened: 0 to 70°C (32 to 158°F)

Ordering Information

100BASE SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EXFE-R1S4-05H1	100m	Cat. 5 or better	RJ-45	-	-	-	-
EX-0155NSP-MB2L	2Km	62.5/125µm, MM	Duplex LC	1310nm	13dBm	-19 to -14dBm	-32dBm
EX-LM38-A3S-TC-N-B3	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm/RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TC-N-B5	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm/RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
EX-0155TSP-MB5L	15Km	9/125µm, SM	Duplex LC	1310nm	19dBm	-15 to -8dBm	-34dBm
EX-0155TBP-MB5L	20Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-LB5L	20Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TSP-MB6L	40Km	9/125µm, SM	Duplex LC	1310nm	30dBm	-5 to 0dBm	-35dBm

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-0155NSP-MB2L-A	2Km	62.5/125µm, MM	Duplex LC	1310nm	13dBm	-19 to -14dBm	-32dBm
EX-LM38-A3S-TI-N-B3	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm/RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TI-N-B5	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm/RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
EX-0155TSP-MB5L-A	15Km	9/125µm, SM	Duplex LC	1310nm	19dBm	-15 to -8dBm	-34dBm
EX-0155TBP-MB5L-A	20Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-LB5L-A	20Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TSP-MB6L-A	40Km	9/125µm, SM	Duplex LC	1310nm	29dBm	-5 to 0dBm	-34dBm
EX-0155TBP-MB6L-A	40Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	26dBm	-8 to -3dBm	-34dBm
EX-0155TBP-KB6L-A	40Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	26dBm	-8 to -3dBm	-34dBm

* More SFP options upon request.

** Link Budget data is based on pair of the same SFP modules.

Gigabit SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-1250NSP-SB1L S	275m/550m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	7.5dBm	-9.5 to -4dBm	-17dBm
EX-1250TBP-MB1L S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm/RX: 1550nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TBP-LB1L S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm/RX: 1310nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TSP-MB2L S	2Km	62.5/125µm, MM	Duplex LC	1310nm	13.5dBm	-9.5 to -3dBm	-23dBm
EX-1250TSP-MB4L S	10Km	9/125µm, SM	Duplex LC	1310nm	11.5dBm	-9.5 to -3dBm	-21dBm
EX-1250TBP-MB4L S	10Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TBP-KB4L S	10Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TSP-MB5L S	20Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-9 to -3dBm	-24dBm
EX-1250TBP-MB5L S	20Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	15dBm	-8 to -3dBm	-23dBm
EX-1250TBP-KB5L S	20Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	15dBm	-8 to -3dBm	-23dBm
EX-LS38-C3L-TC-N-EB (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3L-TC-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3L-TC-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3U-TC-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	24dBm	0 to +5dBm	-24dBm
EX-LS48-C3U-TC-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	23dBm	-2 to +4dBm	-25dBm
EX-LS48-C3U-TC-N-EB (DDM)	70Km	9/125µm, SM	Duplex LC	1550nm	23dBm	0 to +5dBm	-23dBm
EX-LS48-C3U-TC-N51-CE (1510nm) (DDM)	80Km	9/125µm, SM	Single LC	TX: 1510nm/RX: 1570nm	24dBm	-2 to +3dBm	-26dBm
EX-LS48-C3U-TC-N57-CE (1570nm) (DDM)	80Km	9/125µm, SM	Single LC	TX: 1570nm/RX: 1510nm	24dBm	-2 to +3dBm	-26dBm
SFPGIS90C (DDM)	90Km	9/125µm, SM	Duplex LC	1550nm	27dBm	0 to +5dBm	-27dBm

* More SFP options upon request.

** Link Budget data is based on pair of the same SFP modules.

Gigabit SFP Series*

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPGXTIAM	100m	Cat. 5 or better	RJ-45	-	-	-	-
EX-1250NSP-SB1L-A S	275m/550m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	7.5dBm	-9.5 to -4dBm	-17dBm
EX-1250TBP-MB1L-A S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm/RX: 1550nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TBP-LB1L-A S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm/RX: 1310nm	7dBm	-10 to -4dBm	-17dBm
EX-LM38-C3S-TI-N-CE (DDM)	550m	62.5/125µm, MM	Single LC	TX: 1310nm/RX: 1550nm	8dBm	-10 to +2dBm	-18dBm
EX-LM48-C3S-TI-N-CE (DDM)	550m	62.5/125µm, MM	Single LC	TX: 1550nm/RX: 1310nm	10dBm	-8 to 0dBm	-18dBm
EX-1250TSP-MB2L-A S	2Km	62.5/125µm, MM	Duplex LC	1310nm	13.5dBm	-9.5 to -3dBm	-23dBm
EX-1250TSP-MB4L-A S	10Km	9/125µm, SM	Duplex LC	1310nm	11.5dBm	-9.5 to -3dBm	-21dBm
EX-1250TBP-MB4L-A S	10Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TBP-KB4L-A S	10Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TSP-MB5L-A S	20Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-9 to -3dBm	-24dBm
EX-1250TBP-MB5L-A S	20Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	15dBm	-8 to -3dBm	-23dBm
EX-1250TBP-KB5L-A S	20Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	15dBm	-8 to -3dBm	-23dBm
SFPGYS20M (DDM)	20Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	15dBm	-8 to -2dBm	-23dBm
SFPGZS20M (DDM)	20Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	15dBm	-8 to -2dBm	-23dBm
EX-LS38-C3L-TI-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3L-TI-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3U-TI-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1310nm/RX: 1550nm	24dBm	0 to +5dBm	-24dBm
EX-LS48-C3U-TI-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1550nm/RX: 1310nm	23dBm	-2 to +4dBm	-25dBm
EX-LS38-C3L-TI-N-EB (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3U-TI-N-EB (DDM)	70Km	9/125µm, SM	Duplex LC	1550nm	23dBm	0 to +5dBm	-23dBm

* More SFP options upon request.

** Link Budget data is based on pair of the same SFP modules.

10GBASE SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPTIM3AE (DDM)	300m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	2.8dBm	-7.1 to -1dBm	-9.9dBm
SFPTIS10E (DDM)	10Km	9/125µm, SM	Duplex LC	1310nm	8.4dBm	-6 to +0.5dBm	-14.4dBm
SFPTIS20C (DDM)	20Km	9/125µm, SM	Duplex LC	1310nm	9.4dBm	-5 to +1dBm	-14.4dBm
SFPTIS40C (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-0.5 to +5dBm	-15.5dBm

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPTIM3AM (DDM)	300m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	2.8dBm	-7 to -1dBm	-9.9dBm
SFPTIS10M (DDM)	10Km	9/125µm, SM	Duplex LC	1310nm	6.4dBm	-8 to +0.5dBm	-14.4dBm
SFPTIS20M (DDM)	20Km	9/125µm, SM	Duplex LC	1310nm	9.4dBm	-5 to +1dBm	-14.4dBm
SFPTIS40M (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	15dBm	0.5 to +5dBm	-15.5dBm

* More SFP options upon request.

** Link Budget data is based on pair of the same SFP modules.

Backup Tool >>

✓ Value

- › Automatically restore switch configuration files
- › Quickly compare configuration data on switch and EB-232
- › Operation through an intuitive GUI



Ordering Information

EB-232	Configuration Backup and Restoration Tool for Managed Switches
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TransRack >>

✓ Value

- › Mount DIN-Rail devices inside a standard 19" rack or cabinet
- › Unique depth adjustment feature to fit any size of equipment
- › One standard 35mm (1.38") DIN-Rail track included



Features

- › Patented design
- › Heavy-duty cold-rolled steel
- › Adjustable in depth from 50mm (2") to 210mm (8.25")
- › Dimensions: 464 x 105 x 285mm (19" x 4.13" x 11.22") (W x H x D)

Ordering Information

TransRack	KR-DINRAILB
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Mounting Kits >>

KR-BKEL900



19" Rack mounting kit (black)
For EL900, EL9000, EL9020, EL9100, EL1141 and EX94000 Series

KR-BK-43-400



19" Rack mounting kit (black)
For EX33000, EX34000, EX45000, EX46100 and EX95000 Series

KR-BK71000



19" Rack mounting kit (black)
For EX61000A and EX71000 Series

KR-BK7800040



19" Rack mounting kit (black)
For EX73900, EX78000 and EX78900 Series

KR-AE612-400



19" Rack mounting kit (black)
For EX27000 (Single Power), EX77000 (Single Power),
EX87000 (Single Power) and EMC1200R Series

KR-BK1600R-410



19" Rack mounting kit (black)
For EMC1600 Series

KR-BK17



19" Rack mounting kit (black)
For EX17008, EX17008A, EX17908 and EX17908A Series

KP-AA96-480



Panel mounting kit
For EL900, EL9000, EL9020, EL9100, EL1141, EX33000, EX34000, EX43000, EX45000, EX46100, EX47000, EX61000A, EX63000, EX71000, EX73000, EX73900, EX73900E, EX78000, EX78900, EX78900E, EX94000 and EX95000 Series

KD-31003



DIN-Rail mounting kit
For EL2211 and EM1020 Series

KD-AA5100



DIN-Rail mounting kit
For EL1032T and EX42900 Series

Mounting Kits >>

KD-AA78000



DIN-Rail mounting kit
For EX38000, EX48000, EX48000A, EX73900, EX73900E, EX78000, EX78900 and EX78900E Series

KD-AA96000



DIN-Rail mounting kit
For ED3538, ED3575, ED3638, EL1141, EL900, EL9000, EL9100, EX33000, EX34000, EX43000, EX45000, EX46100, EX47000, EX61000A, EX63000, EX71000, EX73000, EX83000, EX94000 and EX95000 Series

KD-AAEL950



DIN-Rail mounting kit
For ED3541, EL8000, EL8100, EL910 and EX41922 Series

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