

OmniConverter[®] GPoE+/SE

Cost-Effective 10/100/1000 Media Converter with Power over Ethernet (PoE or PoE+) Enhanced Version*

The OmniConverter GPoE+/SE are IEEE 802.3at PoE+ Ethernet media converters that feature one uplink port and one 10/100/1000 RJ-45 PoE+ user ports.

The GPoE+/SE provides up to 30W PoE+ on the RJ-45 user port and supports frame sizes up to 10,240 bytes. The uplink ports can be a SFP receptacle or 10/100/1000 RJ-45 copper port.

The GPoE+/SE are available with Small Form Pluggable (SFP) transceiver receptacles. SFP models support 1000Mbps standard, CWDM and DWDM transceivers in a variety of distances and fiber types.

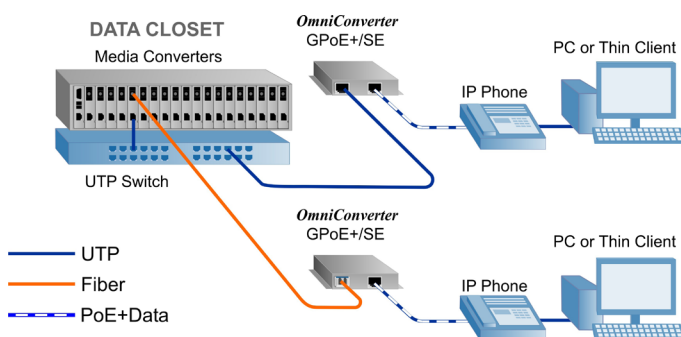
The GPoE+/SE can be tabletop mounted, wall mounted, or DIN-rail mounted using an optional DIN-rail mounting kit. They can also be mounted on a 1U 19" rack-mount shelf. They are available with DC power via terminal connectors or an external 100 to 240V AC power adapters.

APPLICATION

In this application example, a fiber-to-the-desk network is deployed to leverage the security and distance benefits of fiber.

In the main data closet, media converters are installed in high-density rack-mount chassis to provide reliable and cost-effective fiber distribution from existing copper network equipment.

Fiber optic cables run to each office that is outside the 100 meter distance, where they are terminated by OmniConverter GPoE+/SE fiber-to-copper media converters. Copper cable are used when the office is within the 100 meter distance, where they are terminated by OmniConverter GPoE+/SE copper-to-copper media converters



*See the Model Comparison table on page 4 for the comparison of the previous/old and the enhanced models.



SFPs not included

KEY FEATURES

- IEEE 802.3af/at Gigabit Ethernet Media Converter
- Compact size
- One 1000Mbps SFP or one 10/100/1000 RJ-45 uplink port
- One 10/100/1000 RJ-45 PoE+ user port
- Plug and Play
- Available in AC and DC models
- Commercial (0° to 50°C) and wide (-40° to 60°C) operating temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

SPECIFICATIONS

Description	OmniConverter GPoE+/SE 10/100/1000BASE-T to 1000BASE-X Fiber Media Converter with PoE+
Standard Compliances	IEEE 802.3, IEEE 802.3af (15.40 watts max), IEEE 802.3at (30 watts max)
Regulatory Compliances (Pending)	<p>Safety: UL 62368-1, UL 60950-1, IEC 62368-1, IEC 60950-1, EN 62368-1, EN 60950-1, CAN/CSA C22.2 No. 62368-1-14, CAN/CSA C22.2 No. 60950-1, CE Mark, UKCA</p> <p>EMC: EN 55032/24 CE Emissions/Immunity, IEC 61000-6-4 Industrial Emissions, IEC 61000-6-2 Industrial Immunity</p> <p>EMI: CISPR 32, FCC 47 Part 15 Subpart B Class A</p> <p>EMS: IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV, IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m, IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV (DC models), IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV (AC models), IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV (DC models), IEC 61000-4-5 Surge: Power: 1 kV Line/Line; 2 kV Line/Gnd; Signal: 2 kV (AC models), IEC 61000-4-6 CS: Signal: 10 V, IEC 61000-4-8 (Magnetic Field) 30A/m, IEC 61000-4-11 (Voltage Dips, interrupts)</p> <p>IP Rating: IP30D Protection ACT: TAA, BAA, NDAA</p>
Environmental	RoHS, WEEE, REACH
PoE Power Modes	IEEE Alternative A (Alt A)
Frame Size	Up to 10,240 bytes
Port Types	Copper: 10/100/1000BASE-T (RJ-45) Fiber: 1000BASE-X (SFP)
Cable Types	Copper: EIA/TIA 568A/B, Cat 5 UTP and higher Fiber: Multimode: 50/125, 62.5/125µm Single-mode: 9/125µm
AC Power Requirements (Models with AC/DC Adapters)	100 - 240VAC/50 to 60Hz 0.31A @ 120VAC (typical)
DC Power Requirements (Models with DC Terminals)	+/-46 to +/-57VDC; 0.59A @ 56VDC 2 Pin Terminal (isolated) A minimum of 50VDC is required to guarantee 25.5 watts at 100 meters on Cat 5 cable or better.
Dimensions (W x D x H)	3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm)
Weight	Module Only: 1.0 lbs.; 453.6 grams Module w/ Adapter: 1.8 lbs.; 816.4grams
Operating Temperature	Commercial: 0 to 50°C Wide: -40 to 60°C (-20°C AC cold start) Storage: -40 to 80°C
Humidity	5 to 95% (non-condensing)
Altitude	-100m to 4,000m
MTBF (hours)	Module Only: 681,000 AC/DC Adapter: 100,000
Warranty	Lifetime warranty with 24/7/365 free Technical Support

Power / Voltage Requirements and Specifications per IEEE		
Description	IEEE 802.3af PoE	IEEE 802.3at PoE+
Power Supply Voltage Range	46.0 to 57.0 VDC	51.0 to 57.0 VDC
Voltage Range at PSE port Output	44.0 to 56.0 VDC	50.0 to 56.0 VDC
Maximum Power from PoE/PSE port	15.4 watts	30 watts
Minimum Voltage at PoE/PD port input (at 100 meters using Cat5 Cable)	37.0 VDC	42.5 VDC
Minimum Power at PoE/PD port (at 100 meters using Cat5 Cable)	12.95 watts	25.5 watts

ORDERING INFORMATION

The previous/old version of the GPoE/SE and GPoE+/SE are no longer in production. GPoE/SE models 9460 - 9479 and GPoE+/SE 9480 - 9499 are replaced with the enhanced models below.

Step 1: Choose a Base Part Number (949xN-0-1pt)

Model Number	Description
9498N-0-1pt	GPoE+/SE - 1 x 10/100/1000 RJ-45 Uplink Port + 1 x 10/100/1000 RJ-45 30W Port
9499N-0-1pt	GPoE+/SE - 1 x SFP Uplink Port + 1 x 10/100/1000 RJ-45 30W Port

Contact Omnitron for other fiber options. Order the appropriate 1000Mbps SFPs separately. [Visit the Omnitron Optical Transceivers web page.](#)
 Contact Omnitron for conformal coating options.

Step 2: Choose a Power Option (949xN-0-1pt)

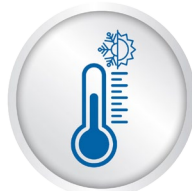
1 = External AC/DC Adapter, 100 - 240 VAC included, with US Power Cord
2 = External AC/DC Adapter, 100 - 240 VAC included, No Power Cord
8 = External AC/DC Adapter, 100 - 240 VAC included, PS JET/PSE Certified, with Japanese Power Cord
9 = Direct DC 2 pin terminal connector, no AC/DC power adapter

Step 3: Choose an Operating Temperature Range Option (949xN-0-1pt)

<leave blank> = Commercial temperature (0 to 50°C)
W = Wide temperature (-40 to 60°C)

ACCESSORIES

Model Number	Description
8250-0	DIN Rail Mounting Kit
8251-0	DIN Rail Mounting Clip
8260-0	1U Rack Mount Shelf (four module per shelf)



MODEL COMPARISON

Previous/Old Base Model	Previous/Old Description	Enhanced Base Model	Enhanced Description
9460 - 9471	GPoE/SE 15 W per RJ-45 User Port FF with 1 or 2 PoE RJ-45	9420N - 9431N	GPoE+/S 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45
9479	GPoE/SE 15 W per RJ-45 User Port SFP with 1 or 2 PoE RJ-45	9439N	GPoE+/S 30 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45
9480 - 9491	GPoE+/SE 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45	9420N - 9431N	GPoE+/S 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45
9499	GPoE+/SE 30 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45	9439N	GPoE+/S 30 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45

Features	Previous/Old Model GPoE/SE and GPoE+/SE	Enhanced Model GPoE+/SE	Benefits
Copper Uplink Ports	N/A	One port	Product flexibility
PoE Power Level	IEEE 802.3af - GPoE/SE IEEE 802.3af/at - GPoE+/SE	IEEE 802.3af/at	15W and 30W versions in one model
Models	Fixed Fiber Model Two RJ-45 PoE User Ports	Not Available	Simplified models available: 1 x SFP + 1 x RJ-45 PoE+ or 1 X RJ-45 + 1 x RJ-45 PoE+
IP Protection	IP20	IP30D	Provides increased enclosure protection

For all models, # of RJ-45 User Ports (y) = 1 or 2, Power Option (p) = 1,2,8 and 9 and Temperature Option (t) = blank and W

Replacement Guide for the Previous/Old GPoE/SE and GPoE+/SE Models			
Previous/Old GPoE/SE Model	Previous/Old GPoE+/SE Model	Enhanced GPoE+/S Model	Enhanced GPoE+/S Product Description
9460-0-ypt	9480-0-ypt	9420N-0-ypt	850 / 850 MM ST 220/550M 7dB
9462-0-ypt	9482-0-ypt	9422N-0-ypt	850 / 850 MM SC 220/550M 7dB
9461-1-ypt	9481-1-ypt	9421N-1-ypt	1310 / 1310 SM ST 12km 10dB
9463-1-ypt	9483-1-ypt	9423N-1-ypt	1310 / 1310 SM SC 12km 10dB
9461-2-ypt	9481-2-ypt	9421N-2-ypt	1310 / 1310 SM ST 34km 18dB
9463-2-ypt	9483-2-ypt	9423N-2-ypt	1310 / 1310 SM SC 34km 18dB
9463-3-ypt	9483-3-ypt	9423N-3-ypt	1550 / 1550 SM SC 80km 18dB
9463-4-ypt	9483-4-ypt	9423N-4-ypt	1550 / 1550 SM SC 110km 24dB
9463-5-ypt	9483-5-ypt	9423N-5-ypt	1550 / 1550 SM SC 140km 30dB
9470-0-ypt	9490-0-ypt	9430N-0-ypt	1310 / 1550 MM-SF SC 550m 9dB
9471-0-ypt	9491-0-ypt	9431N-0-ypt	1550 / 1310 MM-SF SC 550m 9dB
9470-1-ypt	9490-1-ypt	9430N-1-ypt	1310 / 1550 SM-SF SC 20km 10.5dB
9471-1-ypt	9491-1-ypt	9431N-1-ypt	1310 / 1550 SM-SF SC 20km 10.5dB
9470-2-ypt	9490-2-ypt	9430N-2-ypt	1310 / 1550 SM-SF SC 40km 17dB
9471-2-ypt	9491-2-ypt	9431N-2-ypt	1550 / 1310 SM-SF SC 40km 17dB
9479-0-2pt	9499-0-2pt	9439N-0-2pt	1 x SFP with 2 x PoE+ RJ-45 Ports
9479-0-1pt	9499-0-1pt	9499N-0-1pt (GPoE+/SE)	1 x SFP with 1 x PoE+ RJ-45 Port

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