

OmniConverter® FPoE+/SE

10/100BASE-T to 100BASE-X Media Converter with Power over Ethernet (PoE or PoE+) Enhanced Version*

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

The FPoE+/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 RJ-45 copper port.

The FPoE+/SE are available with Small Form Pluggable (SFP) transceiver receptacles. SFP models support 100Mbps standard, CWDM and DWDM transceivers in a variety of distances and fiber types.

The FPoE+/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.



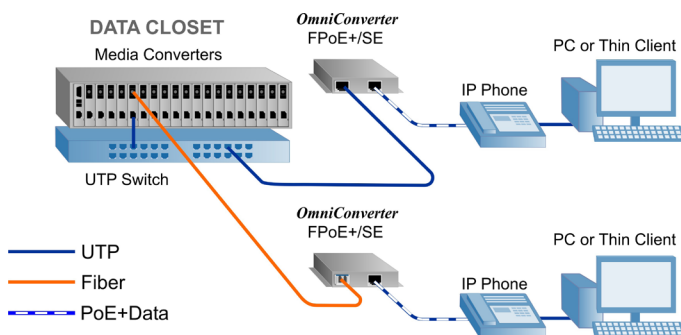
SFPs not included

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 FPoE+/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 FPoE+/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.

KEY FEATURES

- IEEE 802.3af/at Fast Ethernet Media Converter
- Compact size
- One 100Mbps SFP or one 10/100 RJ-45 uplink port
- One 10/100 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 FPoE+/SE 10/100BASE-T to 100BASE-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: 10/100BASE-T (RJ-45) Fiber: 100BASE-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 DC input voltage of 50VDC is required to guarantee 25.5 watts (for 802.3at) at the end of 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 FPoE/SE and FPoE+/SE are no longer in production. FPoE/SE models 9360 - 9379 and FPoE+/SE 9380 - 9399 are replaced with the enhanced models below.

Step 1: Choose a Base Part Number (939xN-0-1pt)

| Model Number | Description |
|--|---|
| 9398N-0-1pt | FPoE+/SE - 1 x 10/100 RJ-45 Uplink Port + 1 x 10/100 RJ-45 30W Port |
| 9399N-0-1pt | FPoE+/SE - 1 x SFP Uplink Port + 1 x 10/100 RJ-45 30W Port |
| Contact Omnitron for other fiber options. Order the appropriate 100Mbps SFPs separately. Visit the Omnitron Optical Transceivers web page. | |
| Contact Omnitron for conformal coating options. | |

Step 2: Choose a Power Option (939xN-0-1pt)

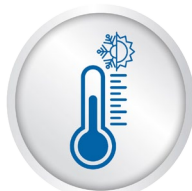
| |
|--|
| 1 = External AC/DC Adapter, 100 - 240 VAC included, with US Power Cord |
| 2 = External AC/DC Adapter, 100 - 240 VAC included, No Power Cord |
| 8 = External AC/DC Adapter, 100 - 240 VAC included, PS JET/PSE Certified, with Japanese Power Cord |
| 9 = Direct DC 2 pin terminal connector, no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

Step 3: Choose an Operating Temperature Range Option (939xN-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 |
|-------------------------|--|---------------------|---|
| 9360 - 9371 | FPoE/SE 15 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE RJ-45 | 9320N - 9331N | FPoE+/S 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45 |
| 9379 | FPoE/SE 15 W per RJ-45 User Port SFP with 1 or 2 PoE RJ-45 | 9339N | FPoE+/S 30 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45 |
| 9380 - 9391 | FPoE+/SE 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45 | 9320N - 9331N | FPoE+/S 30 W per RJ-45 User Port Fixed Fiber with 1 or 2 PoE+ RJ-45 |
| 9399 | FPoE+/SE 15 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45 | 9339N | FPoE+/S 30 W per RJ-45 User Port SFP with 1 or 2 PoE+ RJ-45 |

| Features | Previous/Old Model FPoE/SE and FPoE+/SE | Enhanced Model FPoE+/SE | Benefits |
|---------------------|--|-------------------------|---|
| Copper Uplink Ports | N/A | One port | Product flexibility |
| PoE Power Level | IEEE 802.3af - FPoE/SE IEEE 802.3af/at - FPoE+/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 FPoE/SE and FPoE+/SE Models | | | |
|--|-----------------------------|------------------------|--------------------------------------|
| Previous/Old FPoE/SE Model | Previous/Old FPoE+/SE Model | Enhanced FPoE+/S Model | Enhanced FPoE+/S Product Description |
| 9360-0-ypt | 9380-0-ypt | 9320N-0-ypt | 1310 / 1310 MM ST 5km 7dB |
| 9362-0-ypt | 9382-0-ypt | 9322N-0-ypt | 1310 / 1310 MM SC 5km 7dB |
| 9361-1-ypt | 9381-1-ypt | 9321N-1-ypt | 1310 / 1310 SM ST 30km 16dB |
| 9363-1-ypt | 9383-1-ypt | 9323N-1-ypt | 1310 / 1310 SM SC 30km 16dB |
| 9361-2-ypt | 9381-2-ypt | 9321N-2-ypt | 1310 / 1310 SM ST 60km 26dB |
| 9363-2-ypt | 9383-2-ypt | 9323N-2-ypt | 1310 / 1310 SM SC 60km 26dB |
| 9363-3-ypt | 9383-3-ypt | 9323N-3-ypt | 1550 / 1550 SM SC 120km 26dB |
| 9370-0-ypt | 9390-0-ypt | 9330N-0-ypt | 1310 / 1550 MM-SF SC 5km 20dB |
| 9371-0-ypt | 9391-0-ypt | 9331N-0-ypt | 1550 / 1310 MM-SF SC 5km 20dB |
| 9370-1-ypt | 9390-1-ypt | 9330N-1-ypt | 1310 / 1550 SM-SF SC 20km 15dB |
| 9371-1-ypt | 9391-1-ypt | 9331N-1-ypt | 1550 / 1310 SM-SF SC 20km 15dB |
| 9370-2-ypt | 9390-2-ypt | 9330N-2-ypt | 1310 / 1550 SM-SF SC 40km 22dB |
| 9371-2-ypt | 9391-2-ypt | 9331N-2-ypt | 1550 / 1310 SM-SF SC 40km 22dB |
| 9379-0-2pt | 9399-0-2pt | 9339N-0-2pt | 1 x SFP with 2 x PoE+ RJ-45 Ports |
| 9379-0-1pt | 9399-0-1pt | 9399N-0-1pt (FPoE+/SE) | 1 x SFP with 1 x PoE+ RJ-45 Port |

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