

### OmniConverter® GPoEBT/S

**10/100/1000 Media Converter with Power over Ethernet (60W and 100W) PoE Enhanced Version\***

The OmniConverter GPoEBT/S are multi-port IEEE 802.3bt 60 and 100 watt PoE Ethernet media converters that feature one or two uplink ports and one or two 10/100/1000 RJ-45 PoE user ports.

The GPoEBT/S provides up to 100W PoE per RJ-45 user port and supports frame sizes up to 10,240 bytes. The uplink ports can be fixed fiber or SFP receptacle or 10/100/1000 RJ-45 copper ports.

The GPoEBT/S supports Directed Switch mode, which directs multicast traffic (such as video) only to the appropriate uplink port, preventing the multicast video traffic from flooding other network ports.

Models with two fiber port support redundant fiber uplinks for critical applications that require protection and restoration in the event of a fiber failure. The second fiber port can also be used to cascade multiple media converters.

Models with two fiber ports also support Dual Device mode that enables the module to operate as two independent and isolated Ethernet media converters. In Dual Device mode, the GPoEBT/S provides separate and independent data traffic paths between the two uplink ports and two user ports.

Configurable features include link modes and a PoE power reset function that enables the attached PD device, such as a camera or access point, to be re-initialized remotely, eliminating the need for costly truck rolls to remote PD sites. When a problem with a PD is detected, the fiber port on the module can be disconnected, triggering the PoE power reset function.

Link modes can be configured to propagate loss-of-link faults to managed devices, immediately notifying administrators of network outages.

The module support fixed-fiber connectors and 100Mbps or 1000Mbps SFP transceiver receptacles, enabling easy adaptability to different fiber types, distances and wavelengths. The media converters also support 10/100/1000 SGMII or 1Gbps SERDES copper transceivers and 100Mbps and 1000Mbps standard, CWDM and DWDM fiber transceivers in a variety of distances and fiber types.

The GPoEBT/S 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 input power via terminal connectors or an external 100 to 240V AC power adapters.

**\*See the Model Comparison table on page 5 for the comparison of the previous/old and the enhanced models.**



SFPs not included

### KEY FEATURES

- IEEE 802.3bt 60W and 100W multi-port Gigabit Media Converter
- Compact size
- Dual Device mode for operating as two separate media converters
- Directed Switch mode prevents flooding of multicast video traffic
- Configurable PoE Power Reset
- Uplink redundancy on models with two uplink ports
- Automatic Link Recovery
- Two SFP or two 10/100/1000 RJ-45 uplink ports
- Supports 10/100/1000 and 1G copper SFP transceivers
- Supports 100Mbps and 1000Mbps fiber SFPs
- One ST or SC fixed Gigabit fiber connectors
- One or two 10/100/1000 RJ-45 PoE/PoE+/PoE++ user ports
- Commercial (0° to 50°C), wide (-40° to 60°C) and extended (-40° to 75°C) operating temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

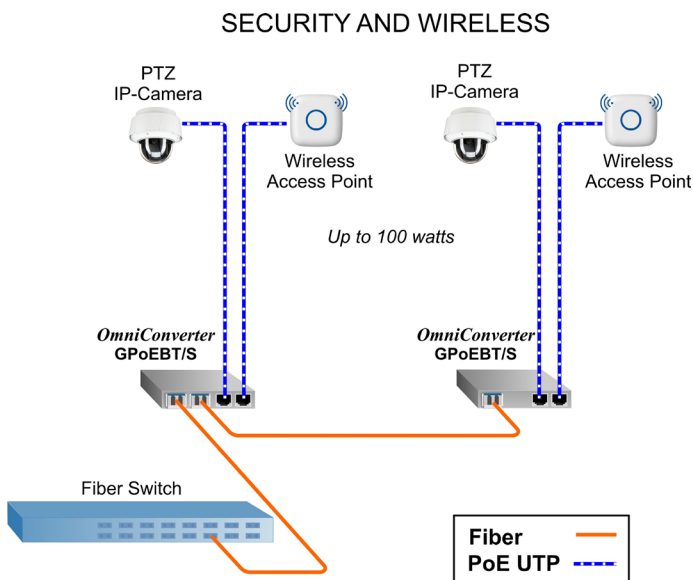
# APPLICATIONS

## Security and Wireless

In this application example, outdoor IP surveillance cameras and Wireless Access Points are installed throughout a large facility. A network switch with fiber ports is used to distribute a fiber link from a control room to a OmniConverter media converter with dual fiber ports. The second fiber port on the OmniConverter is used to daisy-chain the fiber to the next location, where an OmniConverter media converter with one fiber port terminates the fiber.

The OmniConverter media converters provide Power over Ethernet (PoE) over UTP cables to an IP camera and Wireless Access Point at each location, each of which can be located up to 100 meters from the media converter.

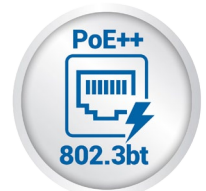
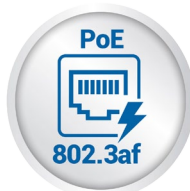
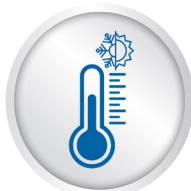
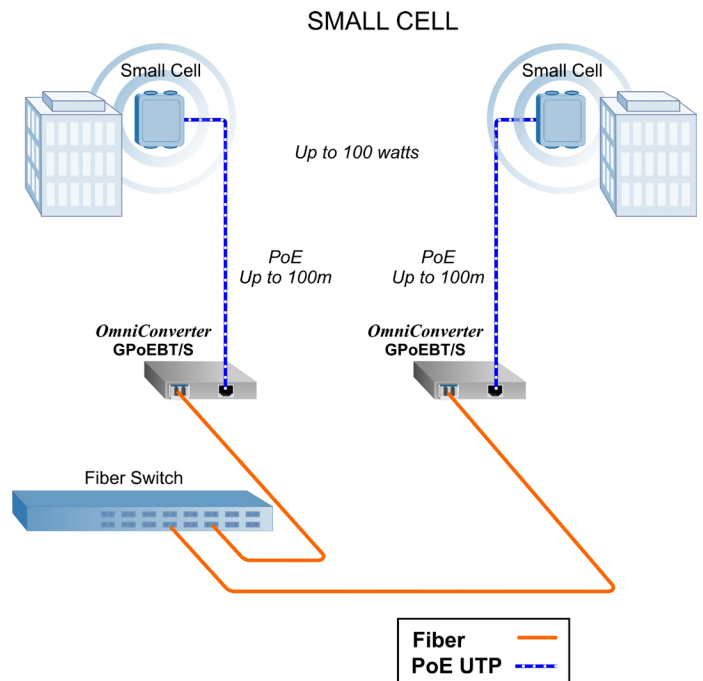
For 60W or 100W PoE devices, such as cameras with heaters/blowers or pan/tilt/zoom motors, the GPoEBT/S can be used for devices that require up to 100W.



## Small Cell

In this application example, High-Power small cell devices are deployed inside several buildings. A network switch with fiber ports is used to distribute a fiber link to OmniConverter media converters.

The OmniConverter GPoEBT/S media converters are capable of providing up to 100 watts on the RJ-45 ports.



# SPECIFICATIONS

|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Description</b>                                                     | <b>OmniConverter GPoEBT/S</b><br>10/100/1000BASE-T to 1000BASE-X or 100BASE-X Fiber Media Converter with 60W or 100W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |
| <b>Standard Compliances</b>                                            | IEEE 802.3,<br>IEEE 802.3af (15.40 watts max), IEEE 802.3at (30 watts max), IEEE 802.3bt (60 and 100 watts max)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |
| <b>Regulatory Compliances<br/>(Pending)</b>                            | <p><b>Safety:</b> UL 62368-1, UL 60950-1,<br/>IEC 62368-1, IEC 60950-1,<br/>EN 62368-1, EN 60950-1,<br/>CAN/CSA C22.2 No. 62368-1-14, CAN/CSA C22.2 No. 60950-1,<br/>CE Mark,<br/>UKCA</p> <p><b>EMC:</b> EN 55032/24 CE Emissions/Immunity,<br/>IEC 61000-6-4 Industrial Emissions,<br/>IEC 61000-6-2 Industrial Immunity</p> <p><b>EMI:</b> CISPR 32,<br/>FCC 47 Part 15 Subpart B Class A</p> <p><b>EMS:</b> IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV,<br/>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m,<br/>IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV (DC models),<br/>IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV (AC models),<br/>IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV (DC models),<br/>IEC 61000-4-5 Surge: Power: 1 kV Line/Line; 2 kV Line/Gnd; Signal: 2 kV (AC models),<br/>IEC 61000-4-6 CS: Signal: 10 V,<br/>IEC 61000-4-8 (Magnetic Field) 30A/m,<br/>IEC 61000-4-11 (Voltage Dips, interrupts)</p> <p><b>IP Rating:</b> IP30D Protection</p> <p><b>ACT:</b> TAA, BAA,NDAA</p> |                                                                                       |
| <b>Environmental</b>                                                   | RoHS, WEEE, REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                       |
| <b>PoE Power Modes</b>                                                 | IEEE Alternative A (Alt A), Alternative B (Alt-B), and 4-pair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
| <b>Frame Size</b>                                                      | Up to 10,240 bytes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |
| <b>Port Types</b>                                                      | <p><b>Copper:</b> 10/100/1000BASE-T (RJ-45)</p> <p><b>Fiber:</b> 100BASE-X (SFP)<br/>1000BASE-X (ST, SC, LC, SFP)<br/>10/100/1000 SGMII (RJ-45 SFP)<br/>1G SERDES (RJ-45 SFP)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                       |
| <b>Cable Types</b>                                                     | <p><b>Copper:</b> EIA/TIA 568A/B, Cat 5 UTP and higher</p> <p><b>Fiber:</b> Multimode: 50/125, 62.5/125µm<br/>Single-mode: 9/125µm</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| <b>AC Power Requirements<br/>(Models with AC/DC Adapters)</b>          | 60W Model - 1 RJ-45 Port<br>100 - 240VAC/50 - 60Hz, 0.61A @ 120VAC (typical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 100W Model - 1 RJ-45 Port<br>100 - 240VAC/50 - 60Hz, 0.99A @ 120VAC (typical)         |
|                                                                        | 60W Model - 2 RJ-45 Ports<br>100 - 240VAC/50 - 60Hz, 1.18A @ 120VAC (typical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100W Model - 2 RJ-45 Ports<br>100 - 240VAC/50 - 60Hz, 1.94A @ 120VAC (typical)        |
| <b>DC Power Requirements<br/>(Models with DC Terminals)</b>            | 60W Model - 1 RJ-45 Port<br>46 to 57VDC, 1.15A @ 56VDC<br>2 Pin Terminal (isolated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 100W Model - 1 RJ-45 Port<br>46 to 57VDC, 1.88A @ 56VDC<br>2 Pin Terminal (isolated)  |
|                                                                        | 60W Model - 2 RJ-45 Ports<br>46 to 57VDC, 2.23A @ 56VDC<br>2 Pin Terminal (isolated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100W Model - 2 RJ-45 Ports<br>46 to 57VDC, 3.67A @ 56VDC<br>2 Pin Terminal (isolated) |
| <b>Dimensions (W x D x H)</b>                                          | 3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                       |
| <b>Weight</b>                                                          | <p>Module Only: 1.0 lbs.; 453.6 grams</p> <p>Module w/ Adapter: 1.8 lbs.; 816.4grams</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       |
| <b>Operating Temperature<br/>(See AC/DC Adapter Temperature Table)</b> | <p><b>Commercial:</b> 0 to 50°C</p> <p><b>Wide:</b> -40 to 60°C (-20°C AC cold start)</p> <p><b>Extended:</b> -40 to 75°C (-20°C AC cold start)</p> <p><b>Storage:</b> -40 to 80°C</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| <b>Humidity</b>                                                        | 5 to 95% (non-condensing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                       |
| <b>Altitude</b>                                                        | -100m to 4,000m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |
| <b>MTBF (hours)</b>                                                    | <p>Module Only: 584,000</p> <p>AC/DC Adapter: 100,000</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                       |
| <b>Warranty</b>                                                        | Lifetime warranty with 24/7/365 free Technical Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |

# ORDERING INFORMATION

The previous/old version of the GHPoEBT/S 60W are no longer in production. GHPoEBT/S models 9500B - 9519B are replaced with the enhanced models below.

## Step 1: Choose a Base Part Number (xxxxN-x-ypt)

| OmniConverter GPoEBT/S IEEE 802.3bt 60W Models |                       |                |             |             |             |                     |                     |                     |                     |                     |              |                  |
|------------------------------------------------|-----------------------|----------------|-------------|-------------|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------|------------------|
| Fiber Type                                     | Distance              | Connector Type |             |             |             | Tx / Rx Lambda (nm) | Min. Tx Power (dBm) | Max. Tx Power (dBm) | Min. Rx Power (dBm) | Max. Rx Power (dBm) | Min Att (dB) | Link Budget (dB) |
|                                                |                       | ST             | SC          | SFP         | RJ-45       |                     |                     |                     |                     |                     |              |                  |
| MM/DF                                          | 220/550m <sup>1</sup> | 9500N-0-ypt    | 9502N-0-ypt | -           | -           | 850 / 850           | -10                 | -4                  | -17                 | -3                  | -            | 7                |
| SM/DF                                          | 12km                  | 9501N-1-ypt    | 9503N-1-ypt | -           | -           | 1310 / 1310         | -9.5                | -3                  | -19.5               | -3                  | -            | 10               |
| SM/DF                                          | 34km                  | 9501N-2-ypt    | 9503N-2-ypt | -           | -           | 1310 / 1310         | -5                  | 0                   | -23                 | -3                  | 3            | 18               |
| SM/DF                                          | 80km                  | -              | 9503N-3-ypt | -           | -           | 1550 / 1550         | -5                  | 0                   | -23                 | -3                  | 3            | 18               |
| SM/DF                                          | 110km                 | -              | 9503N-4-ypt | -           | -           | 1550 / 1550         | 0                   | 5                   | -24                 | -3                  | 8            | 24               |
| SM/DF                                          | 140km                 | -              | 9503N-5-ypt | -           | -           | 1550 / 1550         | 2                   | 5                   | -28                 | -8                  | 13           | 30               |
| MM/SF <sup>2</sup>                             | 550m                  | -              | 9510N-0-ypt | -           | -           | 1310 / 1550         | -9                  | -3                  | -18                 | -3                  | -            | 9                |
| MM/SF <sup>2</sup>                             | 550m                  | -              | 9511N-0-ypt | -           | -           | 1550 / 1310         | -9                  | -3                  | -18                 | -3                  | -            | 9                |
| SM/SF <sup>2</sup>                             | 20km                  | -              | 9510N-1-ypt | -           | -           | 1310 / 1550         | -9.5                | -3                  | -20                 | -3                  | -            | 10.5             |
| SM/SF <sup>2</sup>                             | 20km                  | -              | 9511N-1-ypt | -           | -           | 1550 / 1310         | -9.5                | -3                  | -20                 | -3                  | -            | 10.5             |
| SM/SF <sup>2</sup>                             | 40km                  | -              | 9510N-2-ypt | -           | -           | 1310 / 1550         | -3                  | 0                   | -20                 | -3                  | 3            | 17               |
| SM/SF <sup>2</sup>                             | 40km                  | -              | 9511N-2-ypt | -           | -           | 1550 / 1310         | -3                  | 0                   | -20                 | -3                  | 3            | 17               |
| RJ-45 (x1)                                     | -                     | -              | -           | -           | 9518N-0-ypt | -                   | -                   | -                   | -                   | -                   | -            | -                |
| RJ-45 (x2)                                     | -                     | -              | -           | -           | 9518N-1-ypt | -                   | -                   | -                   | -                   | -                   | -            | -                |
| SFP (x1)                                       | -                     | -              | -           | 9519N-0-ypt |             | -                   | -                   | -                   | -                   | -                   | -            | -                |
| SFP (x2)                                       | -                     | -              | -           | 9519N-1-ypt |             | -                   | -                   | -                   | -                   | -                   | -            | -                |

<sup>1</sup> 62.5/125µm, 100/140µm multimode fiber up to 220m. 50/125µm multimode fiber up to 550m.  
<sup>2</sup> When using single-fiber (SF) models, the Tx wavelength on one end has to match the Rx wavelength on the other.  
 MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber  
 Contact Omnitron for other fiber options. Order the appropriate 100Mbps or 1000Mbps SFPs separately. [Visit the Omnitron Optical Transceivers web page.](#)  
 Contact Omnitron for conformal coating options. Accessories available. [19" Rack Mount Shelf](#) and [DIN-Rail Mounting](#).

## Step 2: Choose the number of RJ-45 ports (xxxxN-x-ypt)

|                     |
|---------------------|
| 1 = One RJ-45 Ports |
| 2 = Two RJ-45 Ports |

## Step 3: Choose a Power Option (xxxxN-x-ypt)

|                                                                                                    |
|----------------------------------------------------------------------------------------------------|
| 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                                     |
| See AC/DC Adapter Temperature table below when ordering AC Powered models (power option 1, 2 or 8) |

## Step 4: Choose an Operating Temperature Range (xxxxN-x-ypt)

|                                                                                                                |
|----------------------------------------------------------------------------------------------------------------|
| <leave blank> = Commercial temperature (0 to 50°C)                                                             |
| W = Wide temperature (-40 to 60°C) - Check table for available wattage for models with AC/DC Power Adapter     |
| Z = Extended temperature (-40 to 75°C) - Check table for available wattage for models with AC/DC Power Adapter |

| AC/DC Adapter Temperature - Total Available Wattage to RJ-45 Ports |                 |                |                       |                       |                       |                       |                       |
|--------------------------------------------------------------------|-----------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model                                                              | RJ-45 PoE Ports | Watts Required | Watts Available @40°C | Watts Available @50°C | Watts Available @60°C | Watts Available @70°C | Watts Available @75°C |
| GPoEBT/S 60 watts                                                  | 1               | 60 watts       | Full Power            | Full Power            | Full Power            | Full Power            | 50 watts              |
|                                                                    | 2               | 120 watts      | Full Power            | Full Power            | Full Power            | 60 watts              | 50 watts              |

# ORDERING INFORMATION

The previous/old version of the GHPoEBT/S 100W are no longer in production. GHPoEBT/S models 9150B - 9169B are replaced with the enhanced models below.

## Step 1: Choose a Base Part Number (xxxxN-x-ypt)

| OmniConverter GPoEBT/S IEEE 802.3bt 100W Models |                       |                |             |             |             |                     |                     |                     |                     |                     |              |                  |
|-------------------------------------------------|-----------------------|----------------|-------------|-------------|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------|------------------|
| Fiber Type                                      | Distance              | Connector Type |             |             |             | Tx / Rx Lambda (nm) | Min. Tx Power (dBm) | Max. Tx Power (dBm) | Min. Rx Power (dBm) | Max. Rx Power (dBm) | Min Att (dB) | Link Budget (dB) |
|                                                 |                       | ST             | SC          | SFP         | RJ-45       |                     |                     |                     |                     |                     |              |                  |
| MM/DF                                           | 220/550m <sup>1</sup> | 9150N-0-ypt    | 9152N-0-ypt | -           | -           | 850 / 850           | -10                 | -4                  | -17                 | -3                  | -            | 7                |
| SM/DF                                           | 12km                  | 9151N-1-ypt    | 9153N-1-ypt | -           | -           | 1310 / 1310         | -9.5                | -3                  | -19.5               | -3                  | -            | 10               |
| SM/DF                                           | 34km                  | 9151N-2-ypt    | 9153N-2-ypt | -           | -           | 1310 / 1310         | -5                  | 0                   | -23                 | -3                  | 3            | 18               |
| SM/DF                                           | 80km                  | -              | 9153N-3-ypt | -           | -           | 1550 / 1550         | -5                  | 0                   | -23                 | -3                  | 3            | 18               |
| SM/DF                                           | 110km                 | -              | 9153N-4-ypt | -           | -           | 1550 / 1550         | 0                   | 5                   | -24                 | -3                  | 8            | 24               |
| SM/DF                                           | 140km                 | -              | 9153N-5-ypt | -           | -           | 1550 / 1550         | 2                   | 5                   | -28                 | -8                  | 13           | 30               |
| MM/SF <sup>2</sup>                              | 550m                  | -              | 9160N-0-ypt | -           | -           | 1310 / 1550         | -9                  | -3                  | -18                 | -3                  | -            | 9                |
| MM/SF <sup>2</sup>                              | 550m                  | -              | 9161N-0-ypt | -           | -           | 1550 / 1310         | -9                  | -3                  | -18                 | -3                  | -            | 9                |
| SM/SF <sup>2</sup>                              | 20km                  | -              | 9160N-1-ypt | -           | -           | 1310 / 1550         | -9.5                | -3                  | -20                 | -3                  | -            | 10.5             |
| SM/SF <sup>2</sup>                              | 20km                  | -              | 9161N-1-ypt | -           | -           | 1550 / 1310         | -9.5                | -3                  | -20                 | -3                  | -            | 10.5             |
| SM/SF <sup>2</sup>                              | 40km                  | -              | 9160N-2-ypt | -           | -           | 1310 / 1550         | -3                  | 0                   | -20                 | -3                  | 3            | 17               |
| SM/SF <sup>2</sup>                              | 40km                  | -              | 9161N-2-ypt | -           | -           | 1550 / 1310         | -3                  | 0                   | -20                 | -3                  | 3            | 17               |
| RJ-45 (x1)                                      | -                     | -              | -           | -           | 9168N-0-ypt | -                   | -                   | -                   | -                   | -                   | -            | -                |
| RJ-45 (x2)                                      | -                     | -              | -           | -           | 9168N-1-ypt | -                   | -                   | -                   | -                   | -                   | -            | -                |
| SFP (x1)                                        | -                     | -              | -           | 9169N-0-ypt |             | -                   | -                   | -                   | -                   | -                   | -            | -                |
| SFP (x2)                                        | -                     | -              | -           | 9169N-1-ypt |             | -                   | -                   | -                   | -                   | -                   | -            | -                |

<sup>1</sup> 62.5/125µm, 100/140µm multimode fiber up to 220m. 50/125µm multimode fiber up to 550m.  
<sup>2</sup> When using single-fiber (SF) models, the Tx wavelength on one end has to match the Rx wavelength on the other.  
 MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber  
 Contact Omnitron for other fiber options. Order the appropriate 100Mbps or 1000Mbps SFPs separately. [Visit the Omnitron Optical Transceivers web page.](#)  
 Contact Omnitron for conformal coating options. Accessories available. [19" Rack Mount Shelf](#) and [DIN-Rail Mounting](#).

## Step 2: Choose the number of RJ-45 ports (xxxxN-x-ypt)

|                     |
|---------------------|
| 1 = One RJ-45 Ports |
| 2 = Two RJ-45 Ports |

## Step 3: Choose a Power Option (xxxxN-x-ypt)

|                                                                                                    |
|----------------------------------------------------------------------------------------------------|
| 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                                     |
| See AC/DC Adapter Temperature table below when ordering AC Powered models (power option 1, 2 or 8) |

## Step 4: Choose an Operating Temperature Range (xxxxN-x-ypt)

|                                                                                                                |
|----------------------------------------------------------------------------------------------------------------|
| <leave blank> = Commercial temperature (0 to 50°C)                                                             |
| W = Wide temperature (-40 to 60°C) - Check table for available wattage for models with AC/DC Power Adapter     |
| Z = Extended temperature (-40 to 75°C) - Check table for available wattage for models with AC/DC Power Adapter |

| AC/DC Adapter Temperature - Total Available Wattage to RJ-45 Ports |                 |                |                       |                       |                       |                       |                       |
|--------------------------------------------------------------------|-----------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model                                                              | RJ-45 PoE Ports | Watts Required | Watts Available @40°C | Watts Available @50°C | Watts Available @60°C | Watts Available @70°C | Watts Available @75°C |
| GPoEBT/S 100 watts                                                 | 1               | 100 watts      | Full Power            | Full Power            | Full Power            | No AC Model Available |                       |
|                                                                    | 2               | 200 watts      | Full Power            | Full Power            | 165 watts             | No AC Model Available |                       |

# MODEL COMPARISON

| Previous/Old Base Model | Previous/Old Description                                               | Enhanced Base Model | Enhanced Description                                                         |
|-------------------------|------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------|
| 9500B - 9511B           | GHPoEBT/S 60W per RJ-45 User Port<br>Fixed Fiber with 1 or 2 BT RJ-45  | 9500N - 9511N       | <b>GPoEBT/S</b> 60W per RJ-45 User Port<br>Fixed Fiber with 1 or 2 BT RJ-45  |
| 9519B                   | GHPoEBT/S 60W per RJ-45 User Port<br>1 or 2 SFP with 1 or 2 BT RJ-45   | 9519N               | <b>GPoEBT/S</b> 60W per RJ-45 User Port<br>1 or 2 SFP with 1 or 2 BT RJ-45   |
| 9150B - 9161B           | GHPoEBT/S 100W per RJ-45 User Port<br>Fixed Fiber with 1 or 2 BT RJ-45 | 9150N - 9161N       | <b>GPoEBT/S</b> 100W per RJ-45 User Port<br>Fixed Fiber with 1 or 2 BT RJ-45 |
| 9169B                   | GHPoEBT/S 100W per RJ-45 User Port<br>1 or 2 SFP with 1 or 2 BT RJ-45  | 9169N               | <b>GPoEBT/S</b> 60W per RJ-45 User Port<br>1 or 2 SFP w/ 1 or 2 BT RJ-45     |

| Features                        | Previous/Old Model<br>GHPoEBT/S and<br>GHPoEBT/S | Enhanced Model<br>GPoEBT/S             | Benefits                                                             |
|---------------------------------|--------------------------------------------------|----------------------------------------|----------------------------------------------------------------------|
| Copper Uplink Ports             | N/A                                              | One or two ports                       | Product flexibility                                                  |
| RJ-45 SFP Support               | N/A                                              | 10/100/1000 SGMII<br>1G SERDES         | Allows for multiple SFP transceiver options                          |
| Dimensions (W x D x H)          | 4.5" x 6.0" x 1.0"                               | 3.8" x 4.8" x 1.0"                     | Compact size                                                         |
| Dual Device Mode                | N/A                                              | Models with dual uplink ports          | Two independent and isolated Ethernet media converters               |
| Directed Switch Mode            | N/A                                              | ✓                                      | Prevents multicast (video) traffic from flooding other network ports |
| Legacy pre-IEEE Power Standards | ✓                                                | Alt A, Alt-B, and 4-pair<br>Power Mode | No configuration for the user                                        |
| 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, W and Z

| Replacement Guide for the Previous/Old GHPoEBT/S Models |                                         |                                   |                                    |                                          |
|---------------------------------------------------------|-----------------------------------------|-----------------------------------|------------------------------------|------------------------------------------|
| Previous/Old<br>GHPoEBT/S 60W<br>Model                  | Previous/Old<br>GHPoEBT/S 100W<br>Model | Enhanced<br>GPoEBT/S 60W<br>Model | Enhanced<br>GPoEBT/S 100W<br>Model | Enhanced<br>GPoEBT/S Product Description |
| 9500B-0-ypt                                             | 9150B-0-ypt                             | 9500N-0-ypt                       | 9150N-0-ypt                        | 850 / 850 MM ST 220/550M 7dB             |
| 9502B-0-ypt                                             | 9152B-0-ypt                             | 9502N-0-ypt                       | 9152N-0-ypt                        | 850 / 850 MM SC 220/550M 7dB             |
| 9506B-0-ypt                                             | 9156B-0-ypt                             | 9519N-0-ypt                       | 9169N-0-ypt                        | Use 1 x SFP model with 1 x 7206-0 SFP    |
| 9506DB-0-ypt                                            | 9156DB-0-ypt                            | 9519N-1-ypt                       | 9169N-1-ypt                        | Use 2 x SFP model with 2 x 7206-0 SFP    |
| 9501B-1-ypt                                             | 9151B-1-ypt                             | 9501N-1-ypt                       | 9151N-1-ypt                        | 1310 / 1310 SM ST 12km 10dB              |
| 9503B-1-ypt                                             | 9153B-1-ypt                             | 9503N-1-ypt                       | 9153N-1-ypt                        | 1310 / 1310 SM SC 12km 10dB              |
| 9507B-1-ypt                                             | 9157B-1-ypt                             | 9519N-0-ypt                       | 9169N-0-ypt                        | Use 1 x SFP model with 1 x 7207-1 SFP    |
| 9507DB-1-ypt                                            | 9157DB-1-ypt                            | 9519N-1-ypt                       | 9169N-1-ypt                        | Use 1 x SFP model with 2 x 7207-1 SFP    |
| 9501B-2-ypt                                             | 9151B-2-ypt                             | 9501N-2-ypt                       | 9151N-2-ypt                        | 1310 / 1310 SM ST 34km 18dB              |
| 9503B-2-ypt                                             | 9153B-2-ypt                             | 9503N-2-ypt                       | 9153N-2-ypt                        | 1310 / 1310 SM SC 34km 18dB              |
| 9503B-3-ypt                                             | 9153B-3-ypt                             | 9503N-3-ypt                       | 9153N-3-ypt                        | 1550 / 1550 SM SC 80km 18dB              |
| 9503B-4-ypt                                             | 9153B-4-ypt                             | 9503N-4-ypt                       | 9153N-4-ypt                        | 1550 / 1550 SM SC 110km 24dB             |
| 9503B-5-ypt                                             | 9153B-5-ypt                             | 9503N-5-ypt                       | 9153N-5-ypt                        | 1550 / 1550 SM SC 140km 30dB             |
| 9510B-0-ypt                                             | 9160B-0-ypt                             | 9510N-0-ypt                       | 9160N-0-ypt                        | 1310 / 1550 MM-SF SC 550m 9dB            |
| 9511B-0-ypt                                             | 9161B-0-ypt                             | 9511N-0-ypt                       | 9161N-0-ypt                        | 1550 / 1310 MM-SF SC 550m 9dB            |
| 9510B-1-ypt                                             | 9160B-1-ypt                             | 9510N-1-ypt                       | 9160N-1-ypt                        | 1310 / 1550 SM-SF SC 20km 10.5dB         |
| 9511B-1-ypt                                             | 9161B-1-ypt                             | 9511N-1-ypt                       | 9161N-1-ypt                        | 1310 / 1550 SM-SF SC 20km 10.5dB         |
| 9510B-2-ypt                                             | 9160B-2-ypt                             | 9510N-2-ypt                       | 9160N-2-ypt                        | 1310 / 1550 SM-SF SC 40km 17dB           |
| 9511B-2-ypt                                             | 9161B-2-ypt                             | 9511N-2-ypt                       | 9161N-2-ypt                        | 1550 / 1310 SM-SF SC 40km 17dB           |
| 9519B-0-ypt                                             | 9169B-0-ypt                             | 9519N-0-ypt                       | 9169N-0-ypt                        | 1 x SFP                                  |
| 9519B-1-ypt                                             | 9169B-1-ypt                             | 9519N-1-ypt                       | 9169N-1-ypt                        | 2 x SFP                                  |

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