Positron’s GAM-PWR family is designed specifically to inject POE as per the IEEE 802.3at standard (GAM-12-M+ and GAM-24-M+) to power the Positron G2002-M+ End-Point devices. The GAM-PWR-24-M+ is a 24 ports (MIMO only - requires 2 copper pairs) mid-span injector that overlays a 55 Vdc power over G.hn pairs. The GAM-PWR-12-M+ operates over 12 ports and offers the same features as the GAM-PWR-24-M+.

The G2002-M+ device (MIMO) can be line powered over two (2) copper pairs per G.hn link. In this case, it provides a POE feed to a device as per IEEE 802.3af (15.4W) to devices such as Wi-Fi Access Points.

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2002-M+</td>
<td>G.hn Wave-2 to Ethernet Bridge over Twisted Pair Line powered over 2 pairs using a GAM-PWR-24-M+ (or GAM-PWR-12-M+). Comes with two (2) GigE ports: Port 1 is a VLAN Trunk port with POE/POE+ and Port 2 is a VLAN Access port. When line powered, the maximum POE from port #1 is 15.4w (IEEE 802.3af).</td>
</tr>
<tr>
<td>GAM-12-M</td>
<td>12 port G.hn Access Multiplexer (GAM) for use over Twisted Pair wiring for 1 pair (SISO) or 2 pairs (MIMO) per RJ45 port</td>
</tr>
<tr>
<td>GAM-24-M</td>
<td>24 port G.hn Access Multiplexer (GAM) for use over Twisted Pair wiring for 1 pair (SISO) or 2 pairs (MIMO) per RJ45 port</td>
</tr>
<tr>
<td>GAM-PWR-12-M+</td>
<td>12 port Mid-Span Power G.hn copper Power Injector to power G2002-M+ devices</td>
</tr>
<tr>
<td>GAM-PWR-24-M+</td>
<td>24 port Mid-Span Power G.hn copper Power Injector to power G2002-M+ devices</td>
</tr>
</tbody>
</table>
## Technical Specifications

| No of Ports | **GAM-PWR-12-M+**: 12 G.hn ports IN and 12 G.hn + Power ports OUT  
**GAM-PWR-24-M+**: 24 G.hn ports IN and 24 G.hn + Power ports OUT |
|---|---|
| Power over G.hn Pin Assignment and Polarity | Output Pairs 4/5 (+), 7/8 (–)  
Output Power Voltage: 55 Vdc  
User Port Power: 36W Typical  
Aggregate Power: 450W (GAM-PWR-12-M+)  
1000W (GAM-PWR-24-M+) |
| Input Power Requirements | AC Input Voltage: 100 to 240 Vac  
DC Input: 46V - 57V  
AC Frequency: 50 to 60 Hz  
AC Input Current:  
GAM-PWR-12-M+: 5.5A @ 110 Vac; 2.75A @ 220 Vac  
GAM-PWR-24-M+: 12A @ 110 Vac; 6A @ 220 Vac |
| Dimensions | 438 mm x 272 mm x 44 mm  
17.3 in. x 10.8 in. x 1.75 in or 1U |
| Weight | 14.3 lbs (6.5 kg) |
| LED Indicators | System Indicator: AC Power (Green)  
User Indicator: Channel Power (Green) |
| Connectors | • Power over G.hn ports and management port: Shielded RJ-45, EIA 568A and 568B  
• Console Port: USB Connector Type B  
• DC Connector: DC Block Terminal  
• RPS Com Connector: HD-D-sub-15 |
| Environmental | Operating Ambient Temperature: 32º to 104ºF (0 to 40ºC)  
Operating Humidity: 10% to 90%, Non-condensing  
Storage Temperature: -4º to 158ºF (-20º to 70ºC)  
Storage Humidity: 5% to 95%, Non-condensing  
Operating Altitude: -1000 to 10,000 ft. (-304.8 to 3048 m) |
| Thermal Rating | 365/810 BTU/Hr |
| Regulatory | IEEE 802.3af (PoE Type 1),  
IEEE 802.3at (PoE+ 2-event)  
RoHS Compliant, VCCI, CE, C-Tick |
| Electromagnetic Emission & Immunity | FCC Part 15, Class B  
EN 55022 Class B (Emissions)  
EN 55024 (Immunity), VCCI |
| Safety Approvals | UL/cUL Per EN 60950-1  
GS Mark Per EN 60950-1 |

**Note**: The GAM product family comes with a 2-year hardware warranty.