



ISO 9001 Certified

## *LP-GPX-05-S Series L1, L2 & L3 GPS Protector*

- *Bidirectional Filter Based Design*
  - *Outstanding IL/RL Characteristics*
  - *DC Blocked RF path for Superior Performance*
- *Solid State DC Path Protection Circuit*
- *Fully Weatherized Housing*



## *Lightning and Surge Protection for The 21st Century™*

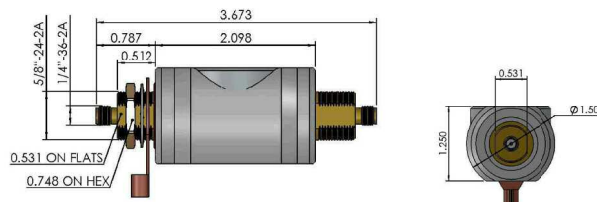
The LP-GPX-05-S high performance series is an exceptional DC pass design for protection of GPS receivers requiring up to 5Vdc power to be supplied on the center pin.

While the RF path is DC blocked, the biased DC voltage protection circuit uses Solid State protection technology to provide unsurpassed surge performance. The LP-GPX-05-S series offers outstanding Insertion Loss and Return Loss characteristics over the 1000-2000MHz band, making it suitable for protection of commercial and military GPS, as well as other applications in this band.

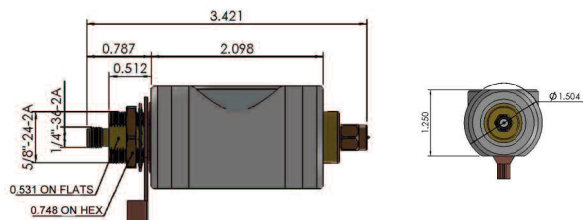
Unlike competitive protectors, the white bronze plated construction of the LP-GPX-05-S series eliminates potential galvanic corrosion issues and provides long life in hostile environments. The fully weatherized housing is sealed to IP65 allowing for outdoor as well as indoor installation.

### LP-GPX-05-S Series:

- LP-GPX-05-SFF  
SMA Female connectors on surge and protected sides - bidirectional
- LP-GPX-05-SFM  
SMA Male connector on one side & SMA Female connector on the other side - bidirectional



- LP-GPX-05-SFF  
1000 - 2000MHz SMA Type F/F



- LP-GPX-05-SFM  
1000 - 2000MHz SMA Type F/M

## Electrical Specifications

|                        |                                               |
|------------------------|-----------------------------------------------|
| Impedance              | 50 $\Omega$                                   |
| Frequency Range        | 1000 - 2000 MHz                               |
| VSWR/ Return Loss      | 1.2:1 / <-20dB                                |
| Insertion Loss         | < 0.1dB                                       |
| Average Power          | 50W                                           |
| Maximum Surge Current  | 10kA multiple (1.2x50/8x20 $\mu$ s wave-form) |
| Turn on-Voltage        | 6Vdc                                          |
| Residual Pulse Voltage | < 12V (6kV/3kA 1.2x50/8x20 $\mu$ s wave-form) |
| Energy Throughput      | < 110 $\mu$ J                                 |
| Protection Circuit     | DC Blocked RF Path/Solid State DC Pass        |

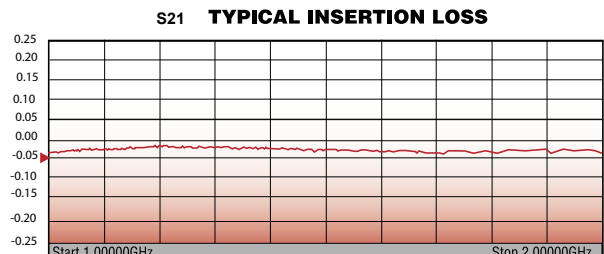
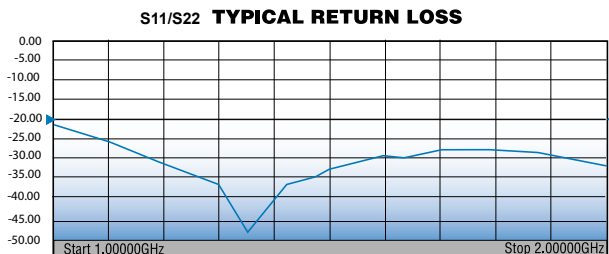
## Mechanical / Environmental Specifications

|                                 |                                  |
|---------------------------------|----------------------------------|
| Temp Range Storage/Operating    | -40°C - +85°C                    |
| Weatherization                  | IEC 60529 IP65                   |
| Thermal Shock                   | US MIL-STD 202, Meth.107, Cond.B |
| Vibration                       | US MIL-STD 202, Meth.204, Cond.B |
| Shock                           | US MIL-STD 202, Meth.213, Cond.I |
| RoHS Compliant                  | Yes                              |
| Mating Life Cycle               | > 500                            |
| Recommended Coupling Nut Torque | 3 - 5 in-lb                      |

## Material Specifications

| Component              | Material        | Plating      |
|------------------------|-----------------|--------------|
| Body                   | Aluminum        | White Bronze |
| Connector Housing      | Brass           | White Bronze |
| Inner Conductor Male   | Brass           | Silver       |
| Inner Conductor Female | Phosphor Bronze | Silver       |
| Coupling Nut           | Brass           | White Bronze |
| Insulator              | PTFE            | --           |
| O-Ring                 | Silicone Rubber | --           |

\*All dimensions shown in inches



World Headquarters: 358 Hall Avenue, Wallingford, CT 06492 • Tel: 203-949-8400, 1-800-867-2629 • Fax: 203-949-8423  
 International Sales: 4 School Brae, Dysart, Kirkcaldy, Fife, Scotland KY1 2XB UK • Tel: +44(0)1592655428  
 China Sales: No. 318 Yuan Shan Road, Shanghai 201108 China • Tel: 86-21-51761234 • Fax: 86-21-64424098  
[www.timesmicrowave.com](http://www.timesmicrowave.com)