



LP-GPX-05-T 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-T 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.

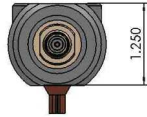
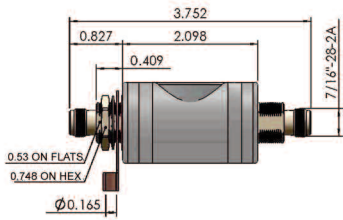
While the RF path is DC blocked, the biased DC voltage protection circuit uses Solid State protection technology to provide unsurpassed surge performance. The LP-GPX-05-T series offers outstanding Insertion Loss and Return Loss characteristics over the 1000-2000MHz band, making it suitable for protection 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-T 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.

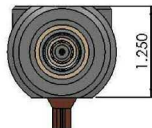
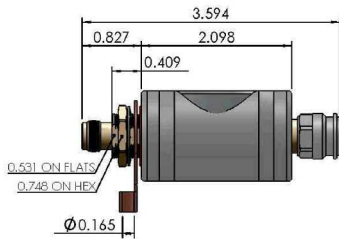
LP-GPX-05-T Series:

- LP-GPX-05-TFF
TNC Female connectors on surge and protected sides - bidirectional
- LP-GPX-05-TFM
TNC Male connector on one side & TNC Female connector on the other side - bidirectional





- LP-GPX-05-TFF
1000 - 2000MHz TNC Type F/F



- LP-GPX-05-TFM
1000 - 2000MHz TNC Type F/M

Electrical Specifications

| | |
|------------------------|---|
| Impedance | 50 Ω |
| Frequency Range | 1000 - 2000 MHz |
| VSWR/ Return Loss | 1.2:1 / <-20dB |
| Insertion Loss | < 0.1dB |
| Average Power | 50W |
| Maximum Surge Current | 10kA multiple (1.2x50/8x20μs wave-form) |
| Turn on-Voltage | 6Vdc |
| Residual Pulse Voltage | < 12V (6kV/3kA 1.2x50/8x20μs wave-form) |
| Energy Throughput | < 110μJ |
| Protection Circuit | DC Blocked RF Path/Solid State DC Pass |

Mechanical / Environmental Specifications

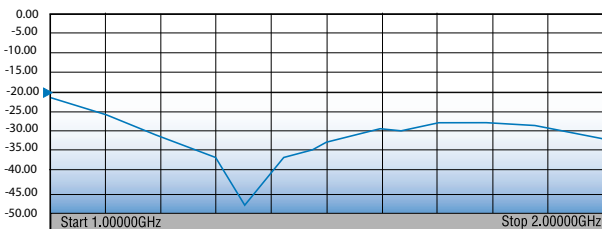
| | |
|---------------------------------|---------------------------------|
| Temp Range Storage/Operating | -40°C - +85°C |
| Weatherization | IEC 60529 IP65 |
| Thermal Shock | US MIL-STD 202, Meth.107,Cond.B |
| Vibration | US MIL-STD 202, Meth.204,Cond.B |
| Shock | US MIL-STD 202, Meth.213,Cond.I |
| RoHS Compliant | Yes |
| Mating Life Cycle | > 500 |
| Recommended Coupling Nut Torque | 4 - 6 in-lb |

Material Specifications

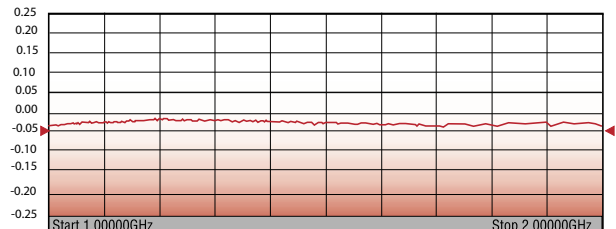
| Component | Material | Plating |
|------------------------|-----------------|--------------|
| Body | Brass | White Bronze |
| Connector Housing | Brass | White Bronze |
| Inner Conductor Male | Brass | Silver |
| Inner Conductor Female | Phosphor Bronze | Silver |
| Coupling Nut | Brass | White Bronze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

*All dimensions shown in inches

S11/S22 TYPICAL RETURN LOSS



S21 TYPICAL INSERTION LOSS



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