

### 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<sup>TM</sup>

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

# **Times-Protect**<sup>®</sup>



- 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	Ma	terial	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		
0-Ring	Silicone Rubber		

\*All dimensions shown in inches



#### S21 TYPICAL INSERTION LOSS





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