ISO 9001 Certified

Times Protect®

LP-GTR-N Series

- *DC Pass Multi-Strike Design*
- *Replaceable Gas Tube*
- *Broadband Bidirectional Design*
- *Excellent IL/RL Performance Over the Entire Operating Frequency Band*
- *Fully Weatherized Housing*
- *Solid Brass Constuction for Durability and Long Life*
- *Includes Universal Right Angle Bracket Adaptor*





Lightning and Surge Protection for The 21st Century™

The **Times-Protect®** LP-GTR-N series is an exceptional broadband DC pass design for lightning protection applications requiring DC power to be supplied to the electronics. Offering outstanding surge performance, the LP-GTR-N series is the perfect protection solution for distributed antenna systems, tower mounted amplifiers, GPS systems and other applications requiring DC pass circuitry. These devices exhibit outstanding RF performance with high surge current handling characteristics and cover a broad range of power handling requirements from 50 to 550 watts. Its fully weatherized housing meeting IP67 standard allows for outdoor as well as indoor installation. The N connector designs cover the entire frequency spectrum from DC through 3000MHz.

LP-GTR-N Series:

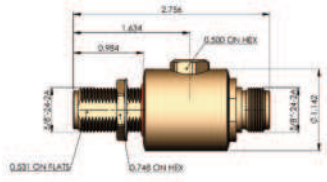
- LP-GTR-NFF (90Vdc/50W)
- LP-GTR-NFF-23 (230Vdc/210W)
- LP-GTR-NFF-35 (350Vdc/550W)

  N Female connectors on both sides - bidirectional
- LP-GTR-NFM (90Vdc/50W)
- LP-GTR-NFM-23 (230Vdc/210W)
- LP-GTR-NFM-35 (350Vdc/550W)

  N Male connector on one side & N Female connector on the other side - bidirectional

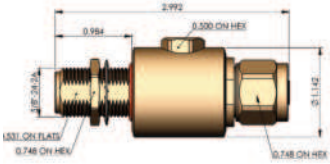
TIMES MICROWAVE SYSTEMS
An Amphenol Company

Times-Protect™



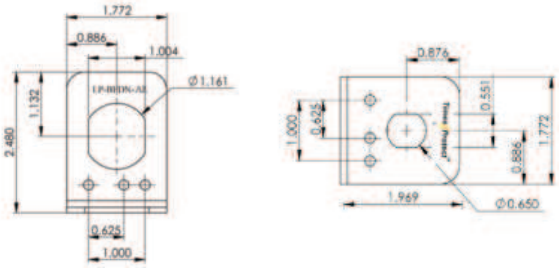
- LP-GTR-NFF
- LP-GTR-NFF-23
- LP-GTR-NFF-35

DC Pass N Type F/F



- LP-GTR-NFM
- LP-GTR-NFM-23
- LP-GTR-NFM-35

DC Pass N Type F/M



- Universal Right Angle Bracket Adaptor

*All Dimensions shown in inches

Electrical Specifications

Impedance	50 Ω		
Frequency Range	DC-3000 MHz		
VSWR/Return Loss	< 1.1:1 / <-26dB (DC-2800MHz) < 1.13:1 / <-24dB (2800-3000MHz)		
Insertion Loss	< 0.1dB (DC-1000MHz) < 0.2dB (1000-3000Mhz)		
Maximum Surge Current	20kA multiple (8x20µs wave-form)		
Part Number: LP-GTR	NFF/NFM	NFF-23/NFM-23	NFF-35/NFM-35
Impulse Sparkover	500V (1kV/µs)	700V (1kV/µs)	800V (1kV/µs)
Turn on	90Vdc	230Vdc	350Vdc
Average Power	50 Watts	210 Watts	550 Watts
Protection Circuit	DC Pass		

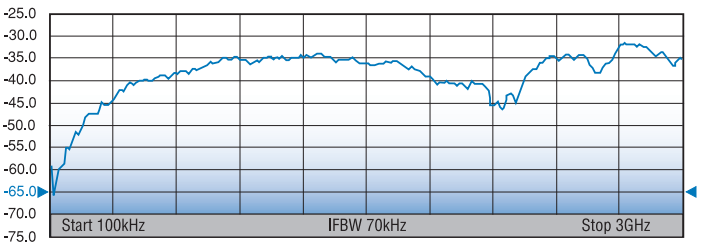
Mechanical / Environmental Specifications

Temp Range Storage/Operating	-40°C - +85°C
Weatherization	IEC 60068 40/085/21 & IP67
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
Wear/Mating Cycles	500 minimum
Recommended Coupling Nut Torque	7 to 10 lb-in
Unit Weight	0.2kg/pc \ 0.44lb

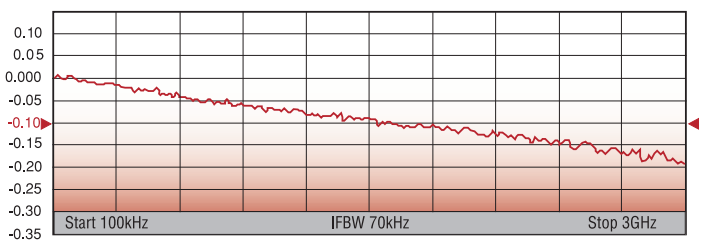
Material Specifications

Component	Material	Plating
Body	Brass	White Bronze
Inner Conductor Male	Brass	Silver
Inner Conductor	Phosphor Bronze	Silver
Washer	Brass	White Bronze
Coupling Nut	Brass	White Bronze
Insulator	TPX	--
O-Ring	Silicone Rubber	--

S11 **TYPICAL RETURN LOSS**(dB)



S21 **TYPICAL INSERTION LOSS**(dB)



TIMES MICROWAVE SYSTEMS
An Amphenol Company

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

LP-GTRN 05/12

© 2012, Times Microwave Systems, Wallingford, CT 06492