



ISO 9001 Certified

### *LP-GTRN 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 Construction for Durability and Long Life*

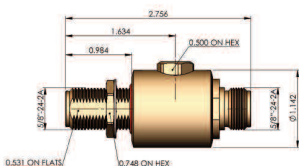


### *Lightning and Surge Protection for The 21st Century™*

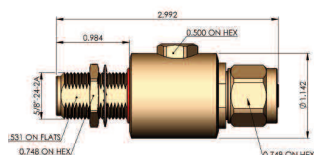
The **Times-Protect™** LP-GTRN series is an exceptional broadband DC pass design for lightning protection applications requiring DC power to be supplied to the electronics. Offering outstanding surge performance the LP-GTRN series is the perfect protection solution for distributed antenna systems, tower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

#### LP-GTRN Series:

- LP-GTR-NFF  
N Female connectors on both sides - bidirectional
- LP-GTR-NFM  
N Male connector on one side & N Female connector on the other side - bidirectional



- LP-GTR-NFF  
DC Pass N Type F/F



- LP-GTR-NFM  
DC Pass N Type F/M

\* All Dimensions shown in inches

## Electrical Specifications

Impedance	50 $\Omega$
Frequency Range	DC-3000 MHz
VSWR/Return Loss	< 1.15 / < -26dB
Insertion Loss	< 0.25 dB
Impulse Spark Over	20KA multiple (8x20 $\mu$ s wave-form)
Turn-on Voltage	90Vdc
Impulse Sparkover	500V (1kV/ $\mu$ s)
Average Power	50 Watts
Protection Circuit	DC Pass

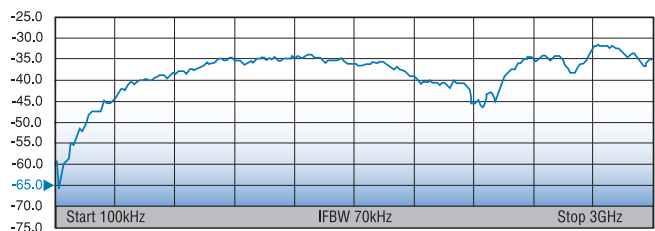
## Mechanical / Environmental Specifications

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

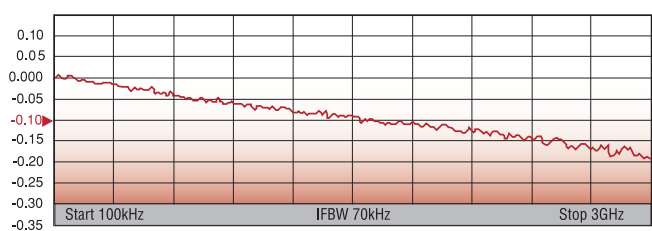
## Material Specifications

Component	Material	Plating
Body	Brass	White Bronze
Inner Conductor Male	Brass	Silver
Inner Conductor Female	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)**



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