



### *LP-BTR Series*

- *DC Blocked for Maximum Surge Protection*
- *Multi-Strike Capability*
- *Broadband Performance from 20MHz up to 1000MHz*
- *Exceptional RF Characteristics*
- *Solid Brass Construction for Durability and Long Life*
- *Universal Grounding Bracket for Flange or Bulkhead Installations*



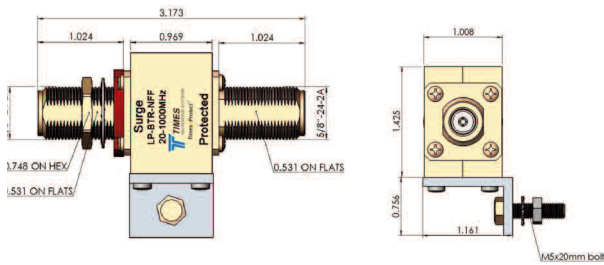
## *Lightning and Surge Protection for The 21st Century™*

The **Times Protect™** LP-BTR high performance surge arrestor series addresses applications in the 20MHz-1000MHz spectrum. Our unique DC blocking technology employed in this design provides optimum isolation of the antenna port from the protected equipment port for maximum surge protection. LP-BTR surge protectors have exceptional RF performance and are constructed from the highest quality materials for unsurpassed durability and longevity. These units meet and surpass all applicable industry standards.

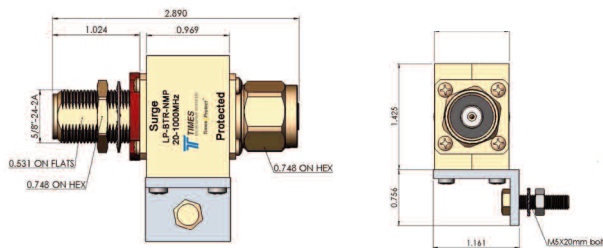
The LP-BTR product family is available with N connector configurations to satisfy various installation requirements.

#### LP-BTR Series:

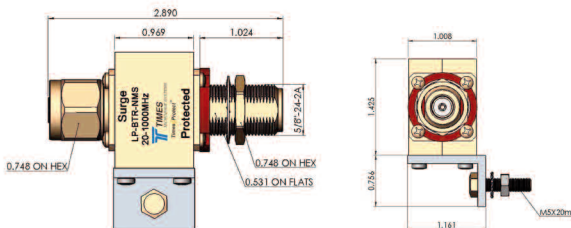
- LP-BTR-NFF  
N Female connectors on surge and protected sides
- LP-BTR-NMP  
N Male connector on protected side with N Female connector on surge side
- LP-BTR-NMS  
N Male connector on surge side with N Female connector on protected side



- LP-BTR-NFF  
20-1000MHz DC Blocked N Type F/F



- LP-BTR-NMP  
20-1000MHz DC Blocked N Type M on Protected



- LP-BTR-NMS  
20-1000MHz DC Blocked N Type M on Surge

\*All dimensions shown in inches

## Electrical Specifications

Impedance	50 Ω
Frequency Range	20-1000 MHz
VSWR/Return Loss	<1.1:1 / <-26dB
Insertion Loss	< 0.1dB
Impulse Discharge Current	10KA multiple (8x20μs wave-form)
Turn-on Voltage	600V ± 20%
Turn-on Time	2.5ns for 2kV/ns
Energy Throughput Rating	<200μJ (4kV/2kA 1.2x50/8x20μs wave-form)
Power Handling at Frequency	375W (20-220MHz) 125W (220-700MHz) 50W (700-1000MHz)
Protection Circuit	DC Blocked

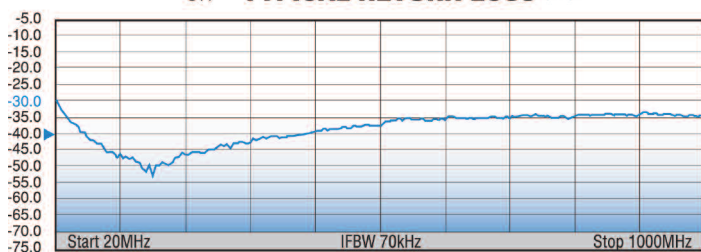
## Mechanical / Environmental Specifications

Temp Range Storage/Operating	-40°C - +85°C / -40°C - +50°C
Weatherization	Required for external use
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	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
Outer Conductor	Brass	White Bronze
Coupling Nut	Brass	White Bronze
Insulator	PTFE	--

S11 TYPICAL RETURN LOSS (dB)

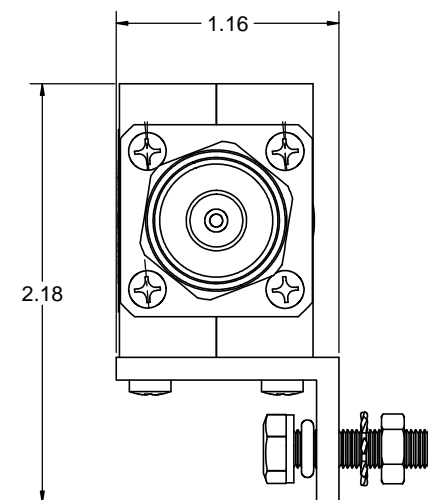
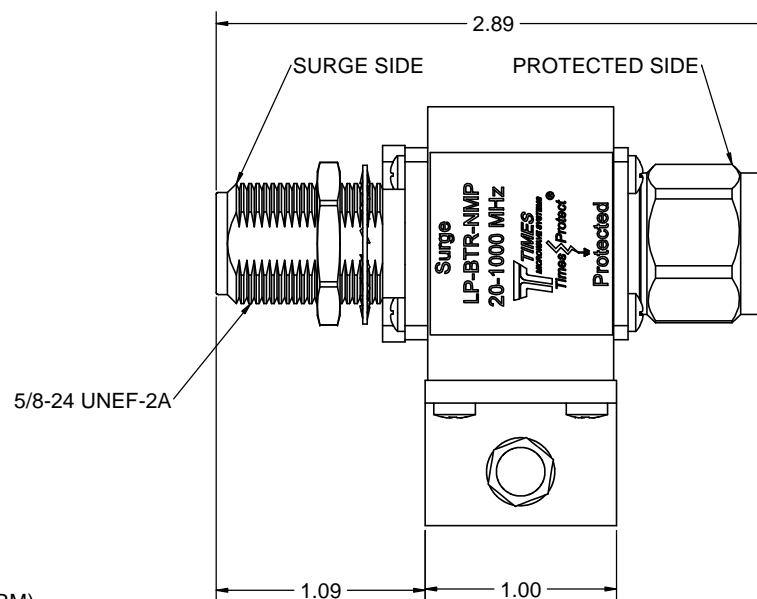
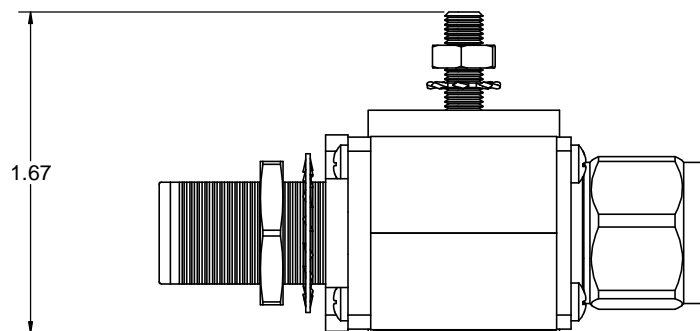


S21 TYPICAL INSERTION LOSS (dB)



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INNER CONNECTOR FEMALE: PHOSPHOR BRONZE, SILVER PLATE  
INNER CONNECTOR MALE: BRASS, SILVER PLATE  
BODY: BRASS, WHITE BRONZE PLATE  
OUTER CONDUCTOR: BRASS, WHITE BRONZE PLATE  
COUPLING NUT: BRASS, WHITE BRONZE PLATE  
INSULATOR: PTFE



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UNLESS OTHERWISE SPECIFIED

ALL DIMENSIONS ARE IN INCHES  
MACHINED SURFACES FINISH 32 RMS MAX.  
REMOVE ALL BURRS .005 MAX. BREAK  
MACHINE CORNERS .005 MAX. FILLET R.  
TOLERANCES ON DECIMALS  
.XX ± .01 .XXX ± .005

ANGLES $\pm$ 1°	FRACTIONS $\pm$ 1%
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TITLE: SURGE PROTECTOR  
N FEMALE TO N MALE  
20-1000 MHz

DWG. SIZE	C
CODE IDENT	68990

DRWG. NO.	LP-BTR-NMP	REV. A
SCALE:	2:1	SHEET 1 OF 1

	A
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SCALE:	2:1	SHEET 1 OF 1
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