

DC Block, Broad Band, Type N Bulkhead, Surge Protector, 1.5-1000 MHz

PTI-BB50 Series



Model Numbers:

- **PTI-BB50NFF**
N Female Connector on Surge and Protected Side
- **PTI-BB50NMP**
N Female Connector on Surge and N Male on Protected Side
- **PTI-BB50NMS**
N Male Connector on Surge and N Female on Protected Side

FEATURES:

- Broad Frequency Range
- Low VSWR and Insertion Loss
- DC Block
- Multi-Strike Capability
- Surge Current of 50kA
- Max Power 2kW
- RoHS & CE Compliant
- Grounding Bracket for Flange or Bulkhead Mounting

APPLICATIONS:

- HF, UHF and VHF Radios
- Amateur (HAM) Radios
- Remote Industrial Monitoring and SCADA

This DC Block Coaxial RF Surge Protector incorporates a blocking capacitor and gas discharge tube (GDT) to provide optimum isolation and maximum protection for equipment up to the maximum RF power of 2kW.

This radio frequency surge / lightning protector helps protect your equipment from electromagnetic pulse (EMP) or power surges that are commonly caused by lightning or other strong electrical charges.

The unit is supplied with a mounting bracket for either flange or bulkhead mounting and grounding along with mounting hardware. The bracket is rotatable for additional installation flexibility.

RF Specifications

Impedance	50 Ω
Frequency	1.5 – 1000 MHz
VSWR	$\leq 1.1:1$ (Over Frequency Range)
Insertion Loss	$\leq 0.1\text{dB}$ (Over Frequency Range)
Maximum RF Power at Frequency	2.0kW (1.5 – 50 MHz) 375W (50 – 220 MHz) 125W (220 – 700 MHz) 50W (700 – 1000MHz)

Transient Specifications

Protection Circuit	DC Block
Surge Current	IEC 61000-4-5 8/20 μs Waveform
Maximum Surge	50 kA (1x)
Rated Impulse Discharge Current	20 kA Multiple (10x) 8x20 μs Waveform
Turn-on Voltage	600V $\pm 20\%$ @ 1kV/ μs
Turn-on Time	2.5ns for 2kV/ns
Let-Through Energy	$\leq 5\text{mJ}$ $\pm 20\%$ @ 3kA 8/20 μs Waveform

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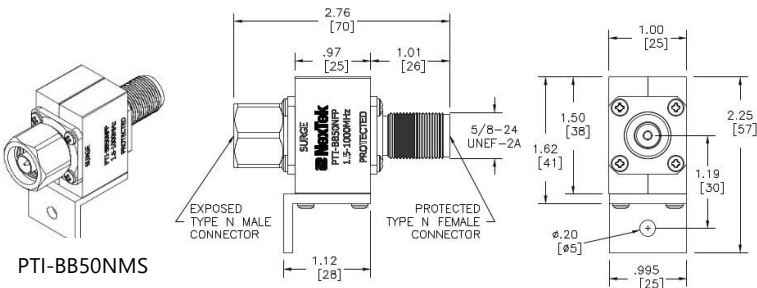
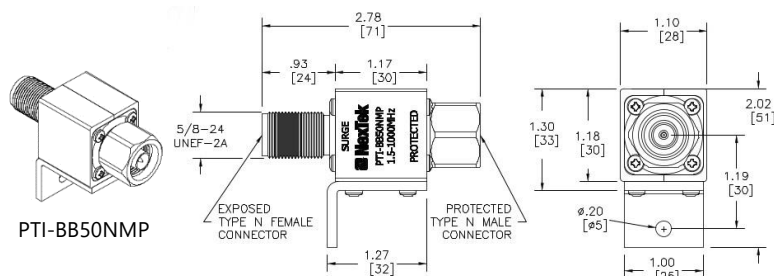
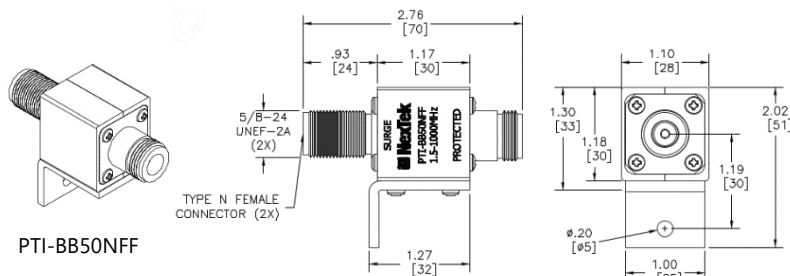
Mechanical / Environmental Specifications

Storage / Operational Temp	-55°C to +85°C
Ingress Protection (IP Rating)	IP65 IEC60529
Weight	0.31 lb. (0.14 kg)
Vibration	1G up to 100Hz
RoHS Compliant	Yes
CE	Yes

Material & Finish Specifications

Component	Material	Finish
Outer Parts	Aluminum	Ball Burnish
Connectors	Brass	Tri-Metal
Coupling Nut & Washer	SST	---
Center Contact	Be Cu / Brass	Gold
Insulator	PTFE	---

Mechanical Outlines



Hardware Kit, Included

Item	Description	Qty
1	Screw 10-32 x 0.75 HEX MS 18-8 SS	1
2	Nut 10-32 HEX 18-8 SS	1
3	Washer 10 INT4-10 SS	2
4	Nut 5/8-24 303 HEX SS	1
5	Washer 5/8 410 SS	1
6	Type N Female O-Ring 114 EPDM	1
7	Bag	1
8	Kit Number Label for Replacement	1

