

PTI-BB50 Weatherized Series

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



DC Block Coaxial RF Surge Protectors incorporate a blocking capacitor and gas discharge tube (GDT) to provide isolation and maximum RF power of 2.0kW. The PTI-BB50-W series is fully weatherized to the IP67 standard for outdoor use. PTI-BB50 Series lightning and surge protectors help protect your equipment from electromagnetic pulse (EMP) or power surges that are commonly caused by lightning or other strong electrical charges.

Features:

- IP67 Rated
- 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 mount

Applications:

- HF, UHF and VHF radios
- Amateur (HAM) radios
- Remote industrial monitoring and SCADA

Model Numbers:

- **PTI-BB50NFF-W**
N Female connector on surge and protected side
- **PTI-BB50NMP-W**
N Female connector on surge and N Male on protected side
- **PTI-BB50NMS-W**
N Male connector on surge and N female on protected side

Electrical 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 - 1000 MHz)

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	$\leq 5\text{mJ}$ $\leq 20\%$ @ 3kA 8/20 μs Waveform

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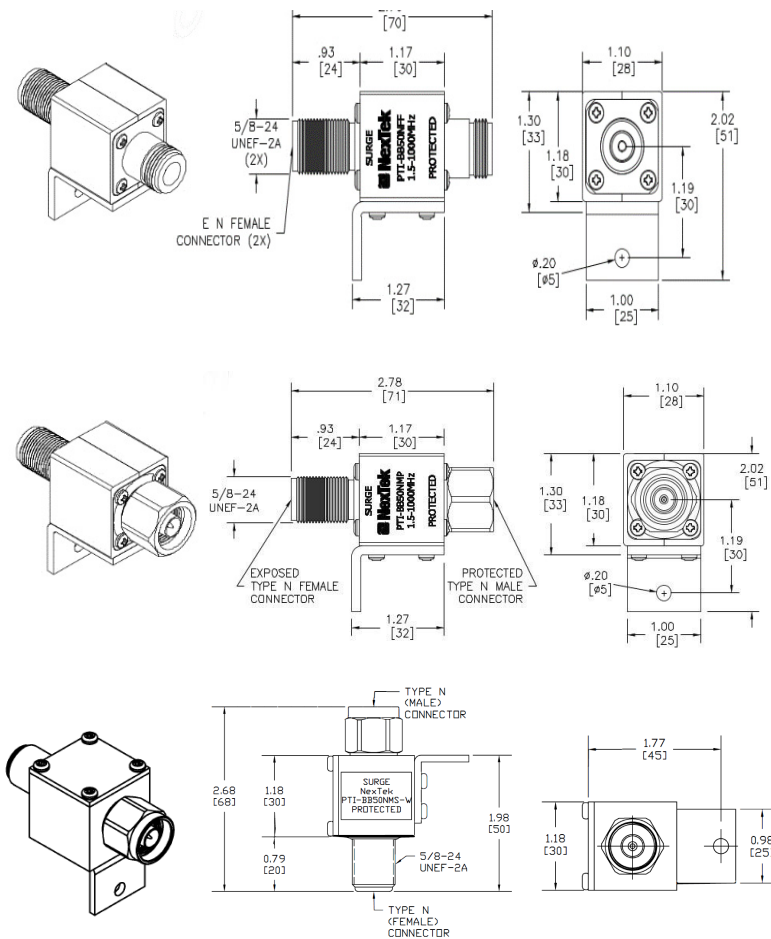
Mechanical/Environmental Specifications:

Storage/Operational Temp	-55°C to 85°C
Ingress Protection (IP Rating)	IP67 IEC60529
Weight	0.31 lb. (0.14kg)
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

