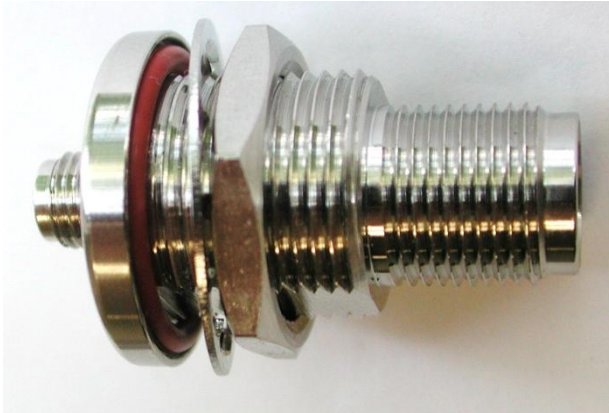


**COMPACT DC BLOCK LIGHTNING & EMP PROTECTOR**  
**500 MHz to 2 GHz**



**Features:**

- ✦ Compact Size
- ✦ Wide Band
- ✦ Reduced Let-through Energy
- ✦ 10 kA Surge Protection
- ✦ TNC to SMA Connectors
- ✦ Rugged and Weatherproof

**RF Specifications**

- ✦ Nominal Impedance: 50Ω
- ✦ Frequency Range: 500 MHz to 2 GHz
- ✦ RF Performance:

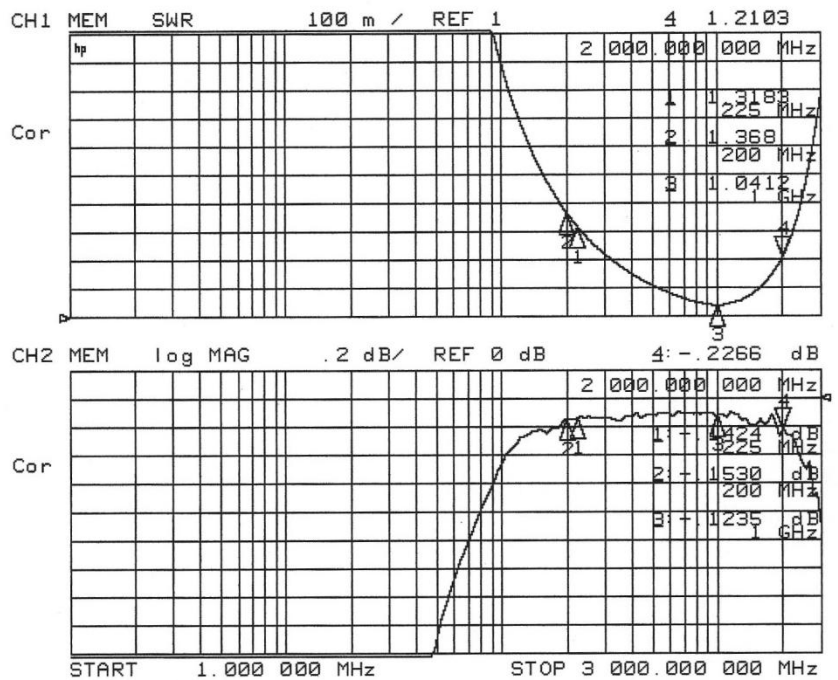
MHz	500	1000	2000
Ins Loss	0.07	0.10	.2dB
VSWR	1.10	1.10	1.2
RF <sub>CW</sub>	35	30	25

RF power at VSWR = 1.0, sea level and 50°C.

**Transient Specifications**

(1.2X50μs Voltage / 8X20μs Current waveform)

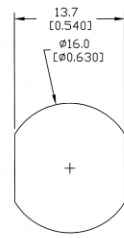
- ✦ Maximum Transient: 10 kA<sub>pk</sub>
- ✦ Let Through: See Voltage Protection Table



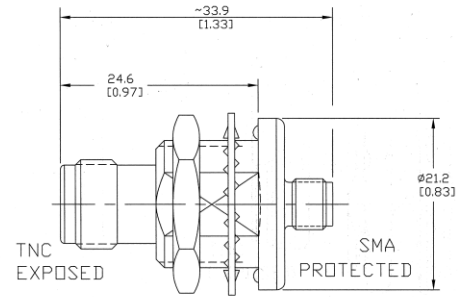
**Typical VSWR and Insertion Loss**

### Mechanical Specifications

- ✦ Mounting/Grounding:  $\phi 16$  [0.630] double D bulkhead mount with environmental gasket. Grounding can also be via a bracket or wire lug to the bulkhead connector.
- ✦ Weight: 0.06 pounds typ / 28g typ
- ✦ Mounting Torque: 80 inch pounds (9 N-m)



MAX PANEL  
6.4mm [.25"]  
mm [INCHES]



PTI TNFSAFxx02

### Material and Finish

Component	Material	Finish
Outer Parts	Brass	Nickel
Center Contact	BeCu	Gold
Insulator	PTFE	
Gasket	SI Rubber	

### Protection Voltage

Protection Voltage	Voltage Code <sup>1</sup>	RF Power (W <sub>CW</sub> ) <sup>2</sup>	Peak Power (W)	Let-through (V <sub>pk</sub> / $\mu$ J) <sup>3</sup>
150	15	35	200	100 / 4
350	35	35	500	140 / 12

<sup>1</sup> Use the voltage code in the part number  
<sup>2</sup> at 500 MHz, derated at higher frequencies  
<sup>3</sup> Input is 6kV @ 1.2x50 $\mu$ s/ 3kA @ 8x20 $\mu$ s, output into 50 $\Omega$

### Environmental Specifications

Temperature Range	-40°C to +90°C
Salt Fog	MIL-STD-202 Method 101D / Condition B (35°C/96 hrs)
Immersion	MIL-STD-202 Method 104A / Condition A (65°C to 25°C w/NaCl – 2 cycles)
Moisture Resistance	MIL-STD-202 Method 106E (65°C/98% RH condensing/240 hrs)
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -65°C to +125°C)
Life (Elevated Temperature)	MIL-STD-202 Method 108A / Condition A (96 hours at 100°C)
Dust and Waterproof Rating	IEC529 IP68 (dust-tight and water proof 24 hrs / 1 m)
Vibration	MIL-STD-202 Method 204D / Condition D (10Hz-2kHz 0.06"DA/20g)
Mechanical Shock	MIL-STD-202 Method 213 / Condition A (50g/11ms ~24")

### Part Number

PTI TNF SAF xx 02

