

## TVS-10G+ Transient Voltage Suppressor, DC - 10 GHz



### 1. Description

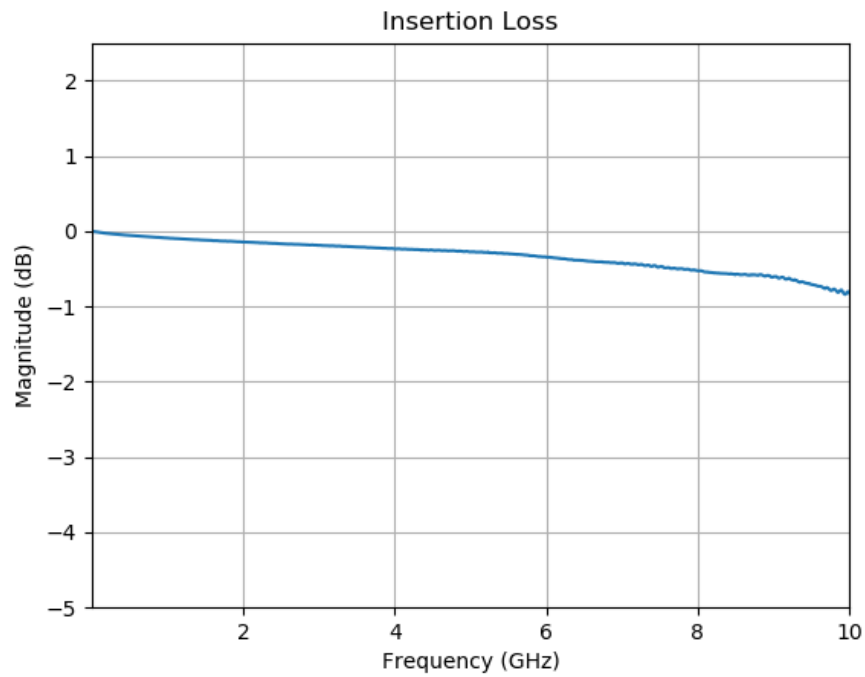
The model TVS-10G+ is an ultra-high bandwidth transient voltage suppressor functional from DC – 10 GHz. This device is designed to protect oscilloscopes from high frequency, high voltage transients, such as ESD measurement. The TVS-10G+ will clamp high voltage transients and is matched to 50  $\Omega$  system. Unlike previous designs, the TVS-10G+ does not cause rising-edge distortion on signals below its trigger voltage.

### 2. Features

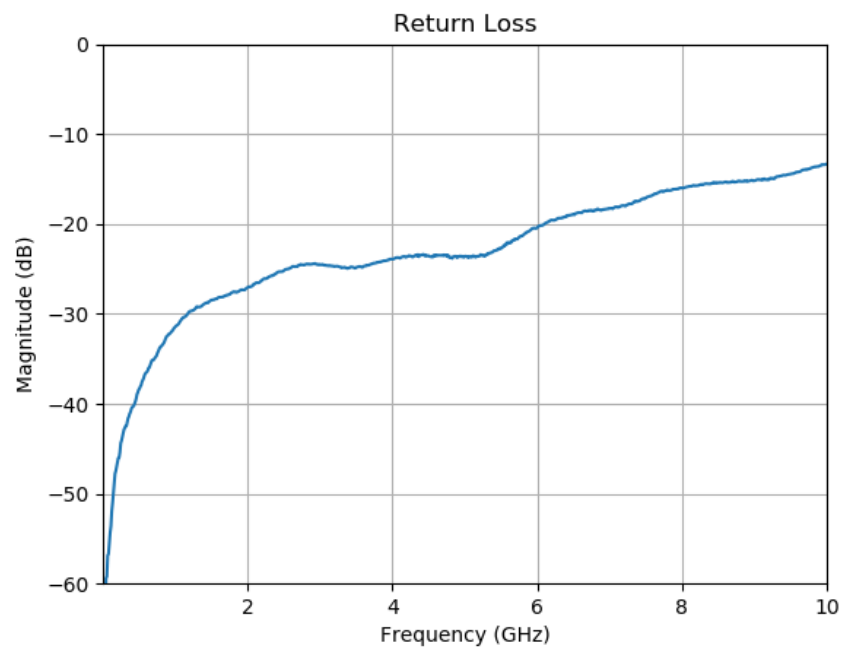
- Functional for a wide bandwidth (DC – 10 GHz)
- Clamps high frequency, high voltage transients between  $\pm 7.5$  V and  $\pm 11$  V
- Useful for IEC 61000-4-2 contact and air discharge up to  $\pm 10$  kV and  $\pm 15$  kV, respectively
- Matched to 50  $\Omega$  system
- Insertion loss at 10 GHz approximately 0.8 dB
- Return loss at 1 GHz less than 30 dB

### 3. Applications

- Oscilloscope protection for high frequency, high voltage measurements
- General protection device for measurements in a 50  $\Omega$  system



**Figure 1: Insertion Loss (S21)**

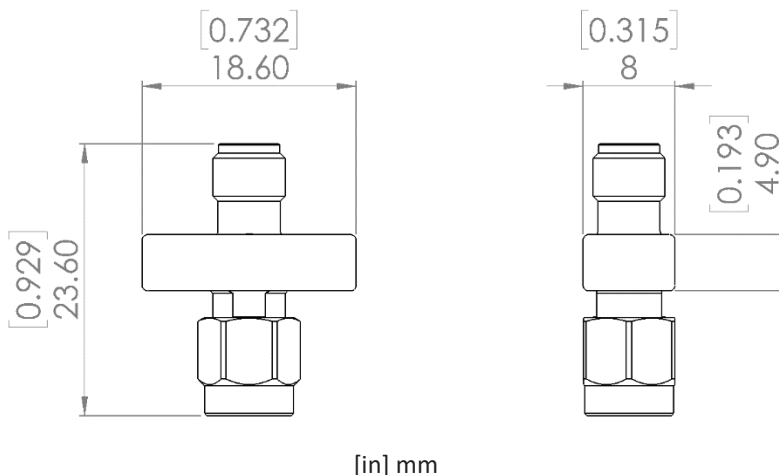


**Figure 2: Return Loss (S11)**

## 4. Specifications

Specifications	Parameter	Unit	Comments
Clamping voltage	$\pm 7.5 - \pm 11$	V	Depends on pulse level
Maximum rated ESD level	$\pm 10$	kV	IEC 61000-4-2 contact (ESD)
Maximum rated ESD level	$\pm 15$	kV	IEC 61000-4-2 air (ESD)
Maximum rated surge level	4.5	A	8/20 $\mu$ s
TLP dynamic resistance	0.45	$\Omega$	4 A – 16 A
Bandwidth	DC – 10	GHz	
Impedance	50	$\Omega$	From DC – 10 GHz
Weight	8	g	

## 5. Dimensions



## 6. Ordering Information

Part Number	Description	Lead Time
TVS-10G+	DC-10 GHz Wideband Transient Voltage Suppressor	1-3 weeks