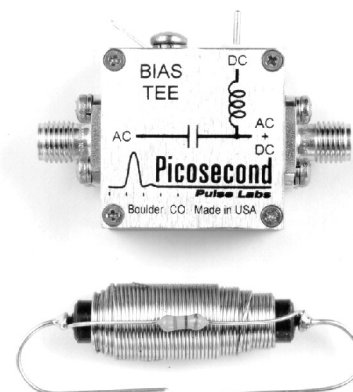


- 3.5 kHz – 7 GHz
- 45 ps Risetime
- 50V, 500mA

The Model 5546 is a broadband, coaxial bias insertion tee and DC blocking capacitor. It was designed to have a very low cutoff frequency of only 3.5 kHz. It passes fast rise pulses with a minimum of waveform distortion. Its risetime is 45 ps. The frequency response is very flat, and the -3dB bandwidth extends from 3.5 kHz to 7 GHz. See Notes [1-4].



Risetime (10%-90%)	45 ps, 75 ps max.	Inductance	1.34 mH, $\pm 30\%$ [4]
Bandwidth (-3 dB)	7 GHz, 4 GHz min.	DC Current	500 mA max.
Low Frequency (-3 dB)	3.5 kHz	Resistance	1.5 Ω
Insertion Loss	0.5 dB	RF Power	2 W avg. max.
Impedance	50 Ω	DC Path Bandwidth	4.5 kHz, typical
Return Loss	23 dB @ 100 MHz	Isolation	30 dB, typical
Refl. Coeff. (35 ps TDR)	-5%, t > 200 ps		
Capacitance	0.9 μ F, -50%, +80%	Dimensions	4.45 x 3.18 x 1.6 cm (case) 2.54 x 2.54 x 1.6 cm
DC Voltage	50 V max.		
Warranty	One Year. See Terms and Conditions of Sale for details.		

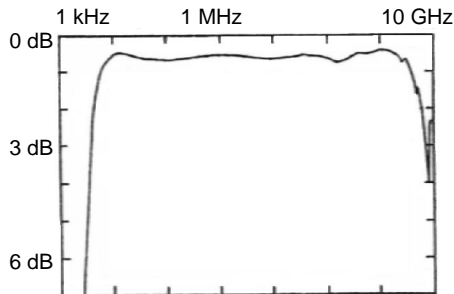
Notes

- [1] Parameters listed are typical values. They are guaranteed only when maximum and / or minimum limits are given.
 [2] 20 ps risetime step response and TDR waveform measured using an HP-54121A, 20 GHz digital sampling oscilloscope.
 [3] Frequency response measured using a Wiltron 5447A, 10 MHz - 20 GHz network analyzer.
 [4] A 1 mH choke is supplied with the bias tee. It is to be wired in series directly to the DC in solder terminal on the coax module. This is a high impedance point. Avoid using long wire, especially coax, for this connection. Do not locate the choke close to ground. Excessive stray capacitance will cause a resonance that will appear as a dip in the insertion loss between 1 and 10 MHz.

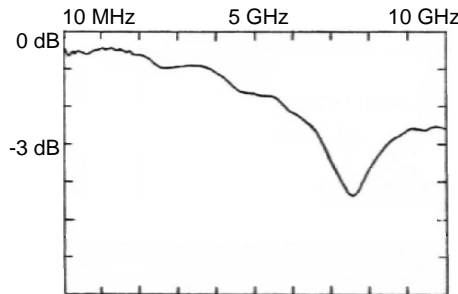
Ordering Information

Model Number	Connector Configuration *				Option
	Type	AC	AC+DC	DC [4]	
5546-107	SMA	Jack (f)	Jack (f)	SP	
5546-108	SMA	Jack (f)	Jack (f)	SP	with mounting plate
5546-114	SMA	Jack (f)	Plug (m)	SP	
5546-119	SMA	Plug (m)	Jack (f)	SP	
5546-122	SMA	Plug (m)	Plug (m)	SP	

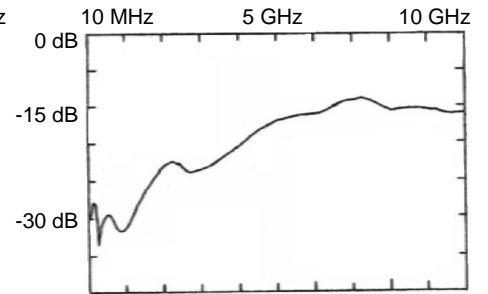
* Other connector combinations may be available on request.



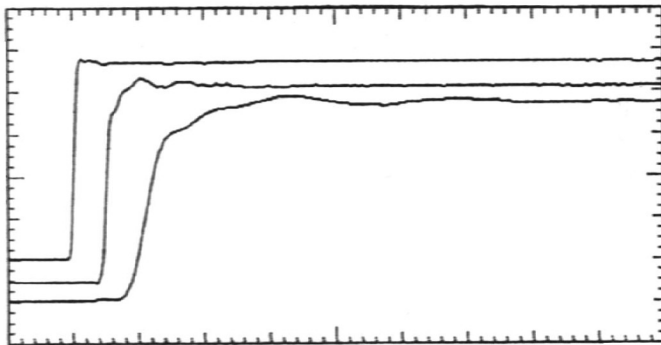
1 dB/div log plot to 10 GHz
Insertion Loss



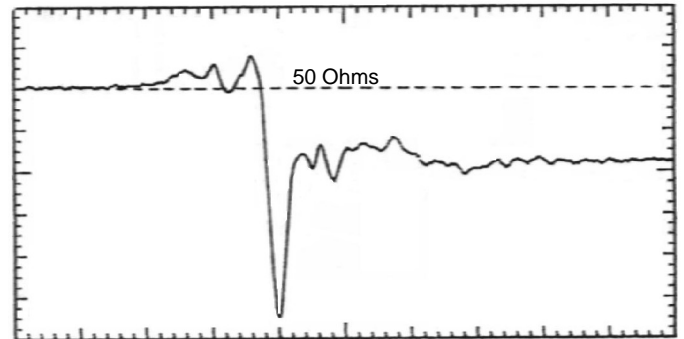
1 dB/div and 1 GHz/div
Insertion Loss



5 dB/div and 1 GHz/div
Return Loss



20%/div. Top to bottom: 1 ns/div, 200 ps/div, and 50 ps/div
Response to 20 ps risetime input step



2.5% rho/div and 200 ps/div
35 ps TDR of AC port

