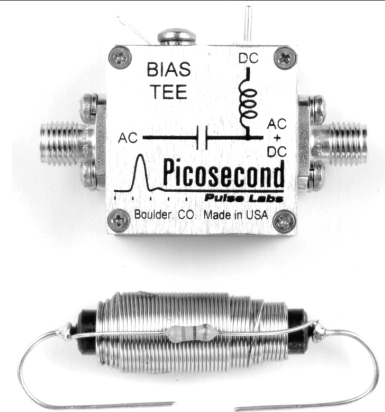




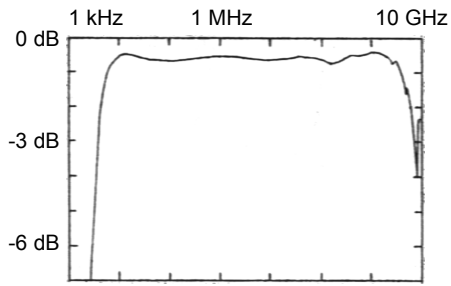
Model 5546
Bias Tee

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

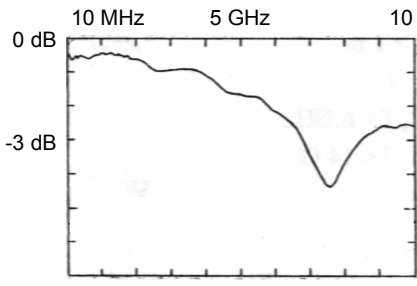
The Model 5546 is a broadband, coaxial bias insertion tee and DC blocking capacitor. It was designed to have a very low cutoff frequency of only 3.5 kHz. It passes fast rise pulses with a minimum of waveform distortion. Its risetime is 45 ps. The frequency response is very flat and the -3dB bandwidth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



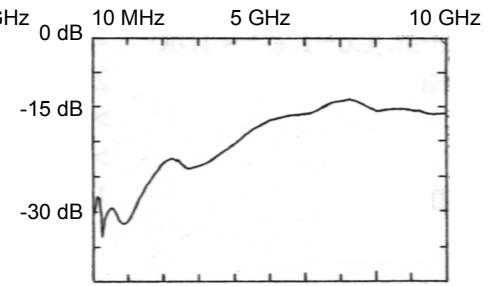
Risetime (10%-90%)	45 ps, 75 ps max.	Capacitance	0.9 μ F, -50%, +80%
Bandwidth (-3 dB)	7 GHz, 4 GHz min.	DC Voltage	50 V max.
Low Frequency (-3 dB)	3.5 kHz	Inductance	1.34 mH, \pm 30% [4]
Insertion Loss	0.5 dB	DC Current	500 mA max.
Impedance	50 Ω	Resistance	1.5 Ω
Return Loss	23 dB @ 100 MHz	RF Power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



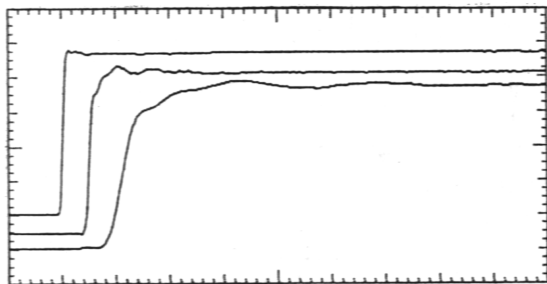
1 dB/div log plot to 10 GHz
Insertion Loss



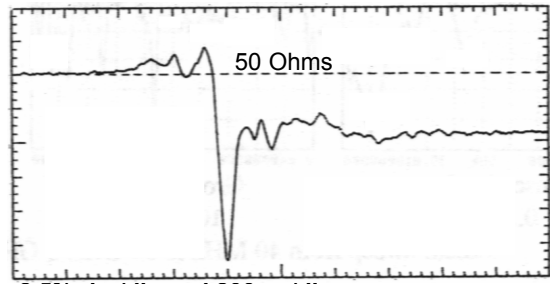
1 dB/div and 1 GHz/div
Insertion Loss



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

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 which will appear as a dip in the insertion loss between 1 and 10 MHz.

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