

- 80 kHz – 26 GHz
- 8 ps Risetime
- 50 V, 100 mA



The Model 5541A is a very broadband, coaxial bias insertion tee and DC blocking capacitor. It passes very fast rise pulses with a minimum of waveform distortion. Its risetime is only 8 ps. The frequency response is flat over many decades, and the -3 dB bandwidth extends from 80 kHz to beyond 26 GHz.

Risetime (10%-90%)	8 ps, 12 ps max.	DC Voltage	50 V max.
Bandwidth (-3 dB)	> 26 GHz [4]	Inductance	1 mH, $\pm 20\%$
Low Frequency (-3 dB)	80 kHz	DC Current	100 mA max.
Insertion Loss	0.4 dB, typical < 1 dB, $f < 6$ GHz < 1.5 dB, $f < 20$ GHz	Resistance	3.7 Ω
Impedance	50 Ω	RF Power	2 W average max.
Refl. Coeff. (35 ps TDR)	-5%, $t > 1$ ns (AC Port)	Isolation	> 40 dB typical
Return Loss (AC Port)	20 dB, $f = 100$ MHz >15 dB, $f < 10$ GHz	Connectors	SMA jacks (f)
Delay	213 ps	Dimensions	5 x 1.3 x 4.6 cm (case) 3.1 x 1.3 x 3.8 cm
Capacitance	0.02 μ F, $\pm 20\%$	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] Not recommended for freq. domain applications above 26 GHz due to higher order waveguide mode resonances in SMA connectors.

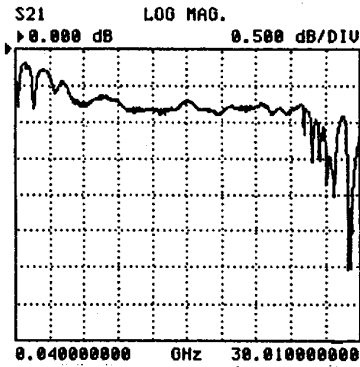
[3] 10 ps risetime step response measured using a PSPL 4015C 15 ps pulse generator and HP54124A, 50 GHz oscilloscope.

[4] Frequency response measured using Wiltron model 37369A, 40 MHz-40 GHz network analyzer.

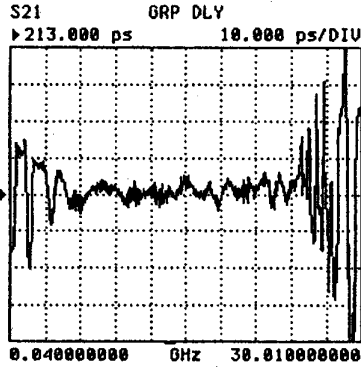
Ordering Information

Model Number
5541A-104

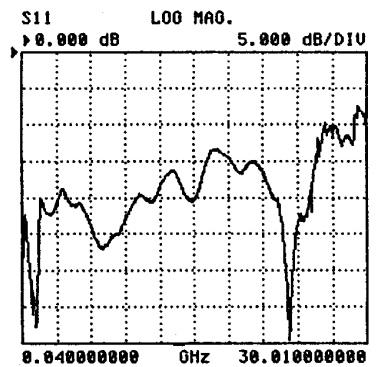
0.5 dB/div
Insertion Loss



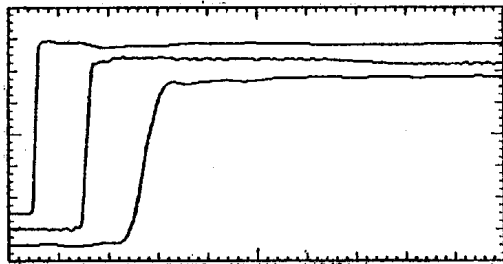
10 ps/div
Group Delay



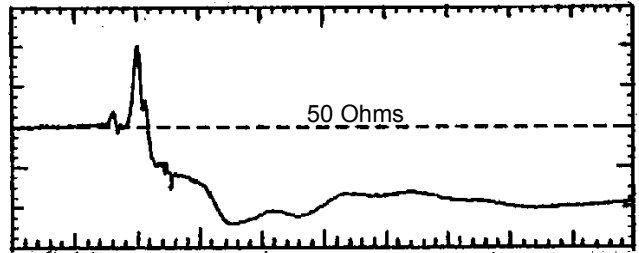
5 dB/div
Return Loss



Linear sweep from 40 MHz to 30 GHz, 3 GHz/div



500 ps/div, 100 ps/div, 20 ps/div
10 ps Step Response



2.5% rho/div and 500 ps/div
35 ps TDR

5541A Mechanical Drawing

