

26 GHz Bias Tee

PSPL5541A Datasheet

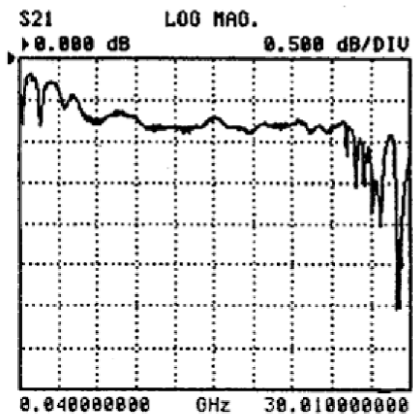


The Model PSPL5541A is a very broadband, coaxial bias insertion tee and DC blocking capacitor. It passes very fast rise pulses with a minimum of waveform distortion. Its rise time is only 8 ps. The frequency response is flat over many decades, and the -3 dB bandwidth extends from 80 kHz to beyond 26 GHz.

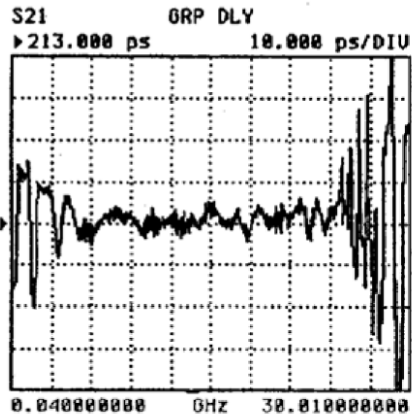
Key performance specifications

- 80 kHz to 26 GHz
- 8 ps rise time
- 50 V, 100 mA

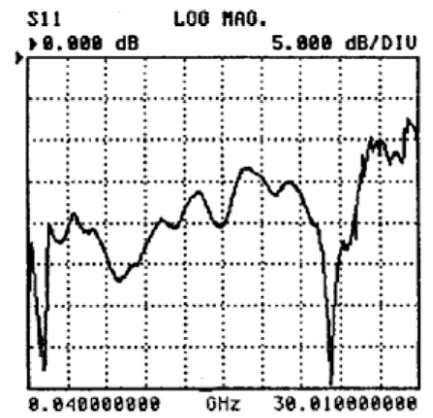
Typical performance



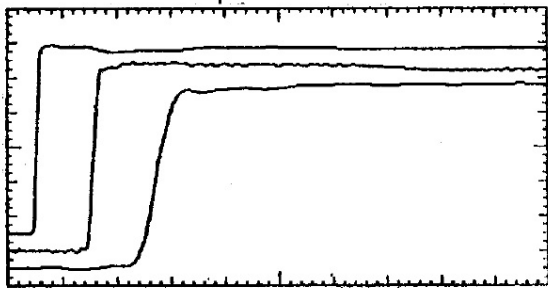
Insertion Loss, AC to AC+DC
0.5 dB/div and 3 GHz/div



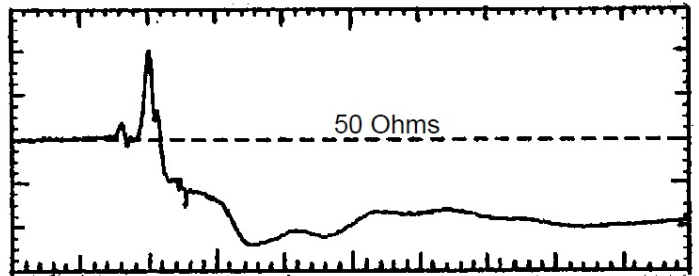
Group Delay
10 ps/div and 3 GHz/div



Return Loss
5 dB/div and 3 GHz/div



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

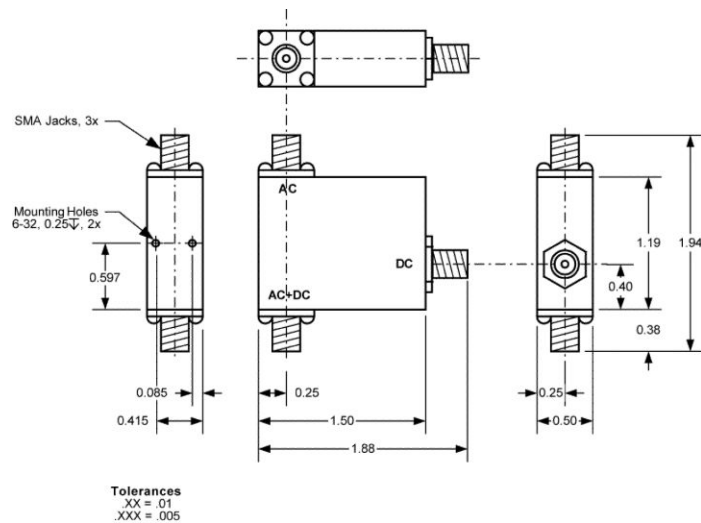


2.5% rho/div and 500 ps/div
35 ps TDR

Specifications

Parameter	Symbol	Units	Minimum	Typical	Maximum	Comments
Impedance	Z	Ohms		50		
Upper 3 dB frequency	$f_{c,h}$	GHz		>26		
Lower 3 dB frequency	$f_{c,l}$	kHz		80		
Rise time	t_r	ps		8	12	10 – 90%
Insertion loss	S_{21}	dB		0.4 1 1.5		Typical f < 6 GHz f < 20 GHz
Return loss	S_{11}	dB		20 >15		f = 100 MHz f < 10 GHz
Refl. Coefficient (35 ps TDR)	Γ	%		-5		t > 1 ns (AC Port)
DC voltage	V	Volts			50	
DC current	I	mA			100	
Capacitance	C	μ F		0.02		+/-20%
Inductance	L	mH		1		+/-20%
Resistance	R	Ohm		3.7		
RF power	P	W			2	Average power
Isolation	S_{13}	dB		>40		
DC path bandwidth	$f_{c,DC}$	kHz		16		
Delay	Td	ps		213		AC port to AC+DC port
RF Connectors	SMA jacks (f)					
DC Connector	SMA jack (f)					
Warranty	One Year					

Mechanical dimensions



Ordering information

Models

PSPL5541A

BIAS TEE, 26 GHz, 50 V

ASEAN / Australasia (65) 6356 3900
Belgium 00800 2255 4835*
Central East Europe and the Baltics +41 52 675 3777
Finland +41 52 675 3777
Hong Kong 400 820 5835
Japan 81 (3) 6714 3086
Middle East, Asia, and North Africa +41 52 675 3777
People's Republic of China 400 820 5835
Republic of Korea +822 6917 5084, 822 6917 5080
Spain 00800 2255 4835*
Taiwan 886 (2) 2656 6688

Austria 00800 2255 4835*
Brazil +55 (11) 3759 7627
Central Europe & Greece +41 52 675 3777
France 00800 2255 4835*
India 000 800 650 1835
Luxembourg +41 52 675 3777
The Netherlands 00800 2255 4835*
Poland +41 52 675 3777
Russia & CIS +7 (495) 6647564
Sweden 00800 2255 4835*
United Kingdom & Ireland 00800 2255 4835*

Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777
Canada 1 800 833 9200
Denmark +45 80 88 1401
Germany 00800 2255 4835*
Italy 00800 2255 4835*
Mexico, Central/South America & Caribbean 52 (55) 56 04 50 90
Norway 800 16098
Portugal 80 08 12370
South Africa +41 52 675 3777
Switzerland 00800 2255 4835*
USA 1 800 833 9200

* European toll-free number. If not accessible, call: +41 52 675 3777

For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tek.com.

Copyright © Tektronix, Inc. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks, or registered trademarks of their respective companies.



23 May 2017 1PW-30568-0

