

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

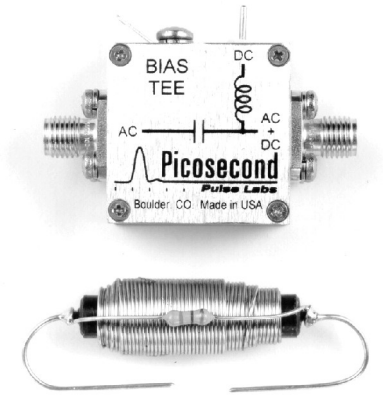
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

MODEL 5546
BIAS TEE
PRODUCT SPECIFICATION

- **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].

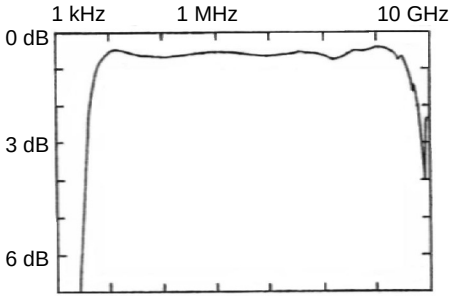
Risetime (10%-90%)	45 ps, 75 ps max.	**Inductance**	1.34 mH, ±30% **[4]**
Bandwidth (-3 dB)	7 GHz, 4 GHz min.	**DC Current**	500 mA max.
Low Frequency (-3 dB)	3.5 kHz	**Resistance**	1.5 Ω
Insertion Loss	0.5 dB	**RF Power**	2 W avg. max.
Impedance	50 Ω	**DC Path Bandwidth**	4.5 kHz, typical
Return Loss	23 dB @ 100 MHz	**Isolation**	30 dB, typical
Refl. Coeff. (35 ps TDR)	-5%, t > 200 ps		
Capacitance	0.9 µF, -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.

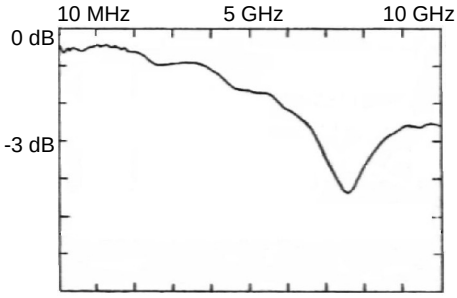
Ordering Information

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	

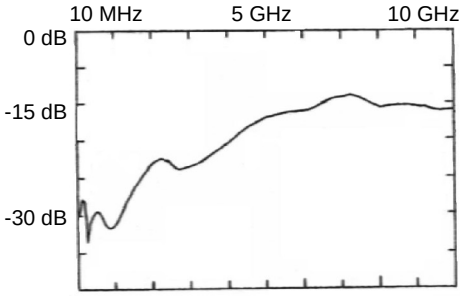
* Other connector combinations may be available on request.



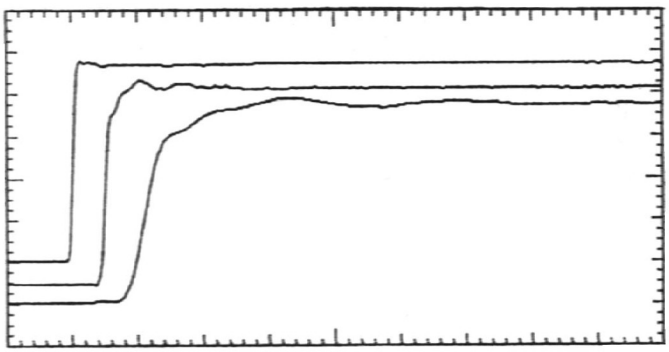
1 dB/div log plot to 10 GHz
Insertion Loss



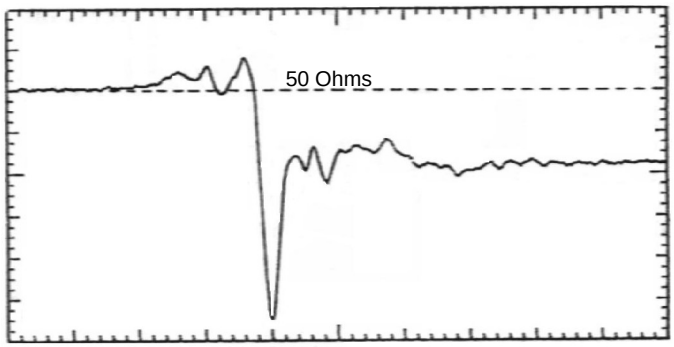
1 dB/div and1 GHz/div
Insertion Loss



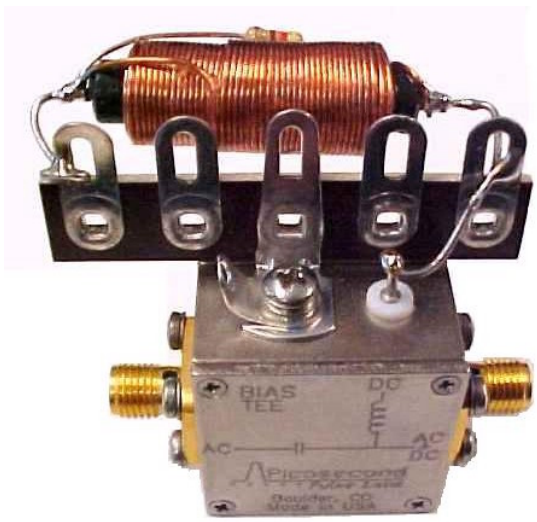
5 dB/div and1 GHz/div
Return Loss



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



Suggested assembly of the external inductor and terminal strip

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP