

The Model 5575A is a broadband coaxial bias insertion tee and DC blocking capacitor designed to pass fast rise pulses with minimum waveform distortion. The risetime is 30 ps with a -3 dB bandwidth extending from 10 kHz to 12 GHz. The 5575A will safely carry 500 mA of DC current. However, core saturation limits the low frequency response at DC currents above 20 mA. See Notes [1-3].



Risetime (10%-90%) [2]	30 ps, 35 ps max.
Bandwidth (-3 dB) [3]	12 GHz, 10 GHz min.
Low Frequency (-3 dB)	10 kHz
Insertion Loss (0.01 – 3 GHz)	0.6 dB, ± 0.5 dB
Impedance	50 Ω
Refl. Coefficient (35 ps TDR) (AC Port)	$\pm 5\%$, $t < 100$ ps -6% , $t > 100$ ps
DC Current	500 mA max.
Isolation (AC – DC)	> 30 dB
Return Loss [3] (AC Port)	$0.1 < f < 10$ GHz $RL > 18$ dB – 1.2 dB/GHz * f (GHz)
DC Voltage	50 V max.
Inductance	8 mH, $\pm 30\%$
Core Saturation Current < 20 mA 100 mA 500 mA	-3 dB low freq. < 10 kHz 70 KHz 300 kHz
DC Resistance	0.6 Ω
CW RF Power	3.5 W max.
DC Path Bandwidth	10 kHz typical
Connectors	SMA jacks (f)
Capacitance	0.02 μ F -50%, +80%
Dimensions	1.95" x 0.5" x 1.82" (5 x 1.3 x 4.6 cm)
Warranty	One year. See Terms and Conditions of Sale for details

Notes

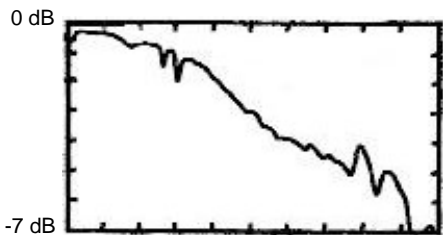
[1] Parameters listed are typical values. They are guaranteed only when maximum and / or minimum limits are given.

[2] 10 ps risetime step responses and TDR waveform measured using a PSPL Model 4015B pulse generator and an HP-54124A, 50 GHz, 9.4 ps digital sampling oscilloscope.

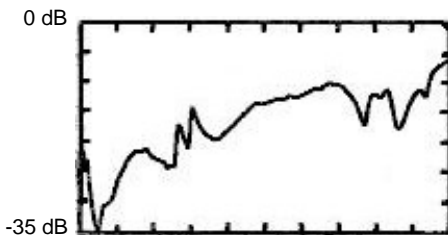
[3] Frequency response measured using a Wiltron 5447A, 10 MHz - 20 GHz network analyzer.

Ordering Information

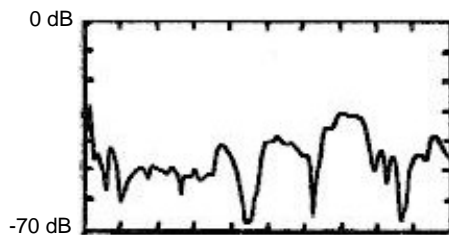
Model Number
5575A-104



1 dB/div and 2 GHz/div
Insertion Loss



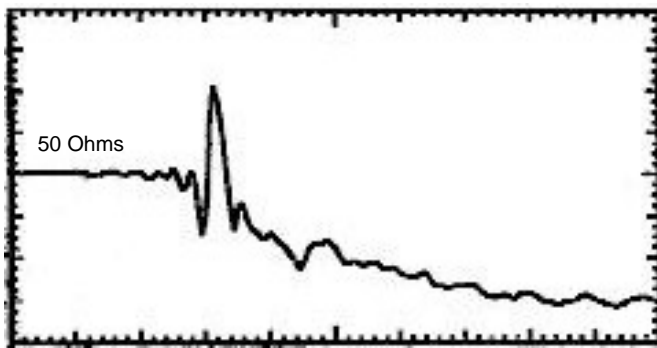
5 dB/div and 2 GHz/div
Return Loss



10 dB/div and 2 GHz/div
Isolation (AC-DC)

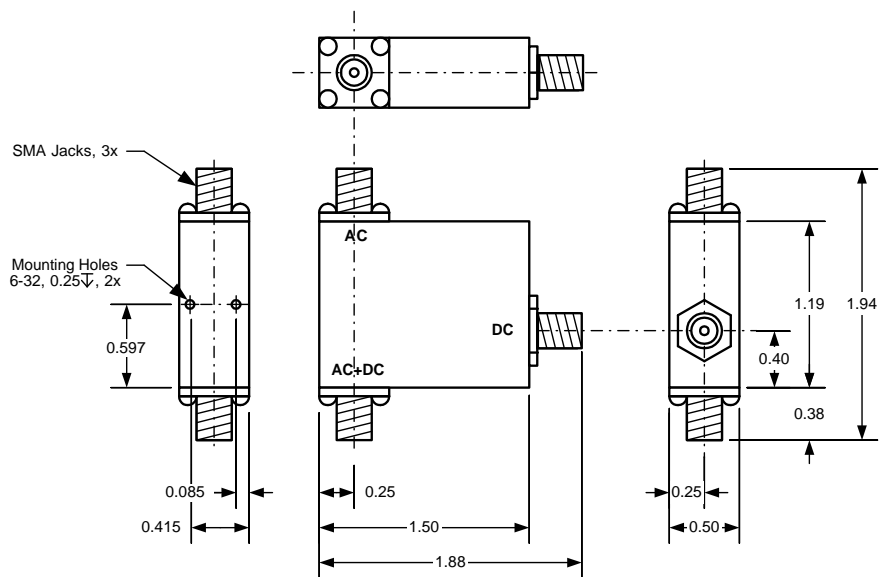


20%/div
Top to bottom: 500 ps/div, 100 ps/div, and 20 ps/div
10 ps Step Response



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

5575A Mechanical Drawing



Tolerances
.XX = .01
.XXX = .005