

Performance/Features:

- 20 kHz to >50 GHz bandwidth
- 7 ps risetime
- 500 mA maximum bias current
- 100 V_{DC} blocking voltage
- Available with 2.92 or 2.4 mm connectors



Model 5543-219

The Model 5543 is an ultra-broadband, 500mA current, coaxial bias insertion tee and 100V DC blocking capacitor that passes high bandwidth pulses with very low waveform distortion. Its risetime is only 7 ps and its frequency response is flat over many decades from 20 kHz to beyond 50 GHz.

5543 Electrical Specifications*

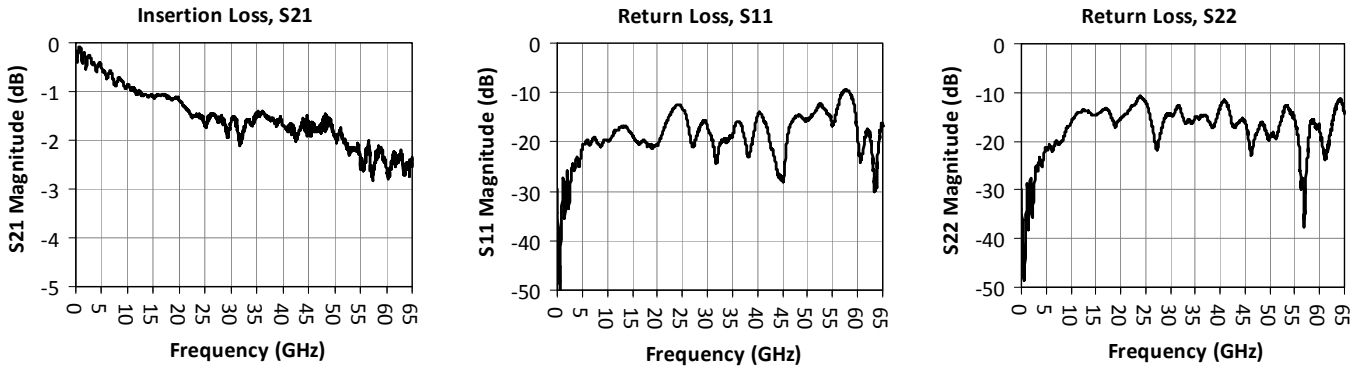
PARAMETER	SYMBOL	UNITS	MIN	TYPICAL	MAX	COMMENTS
Impedance	Z	Ohms		50		
Upper 3dB Frequency	f _{c,h}	GHz	40			2.92 mm Option
			50			2.4 mm Option
Risetime	t _r	ps		7		10-90%
Lower 3dB Frequency	f _{c,l}	kHz		20		
Insertion Loss See S ₂₁ plot	S ₂₁	dB			3 at 40 GHz	2.92 mm Option
				See plot	3 at 50 GHz	2.4 mm Option
Input (AC) Return Loss	S ₁₁	dB	10 to 40 GHz			2.92 mm Option
			10 to 50 GHz	See plot		2.4 mm Option
Output (AC+DC) Return Loss	S ₂₂	dB	8 at 40 GHz			2.92 mm Option
			8 at 50 GHz	See plot		2.4 mm Option
DC Bias Current	I	mA			500	DC port
DC Blocking Capacitance	C	μF		0.20		
DC Bias Inductance	L	mH		0.5		DC port
DC Bias Resistance	R	Ohms		1.5		DC port
RF Power	P	W			TBD	

*Maximum and minimum values are based on manufacturing test limits at 25 degrees C.

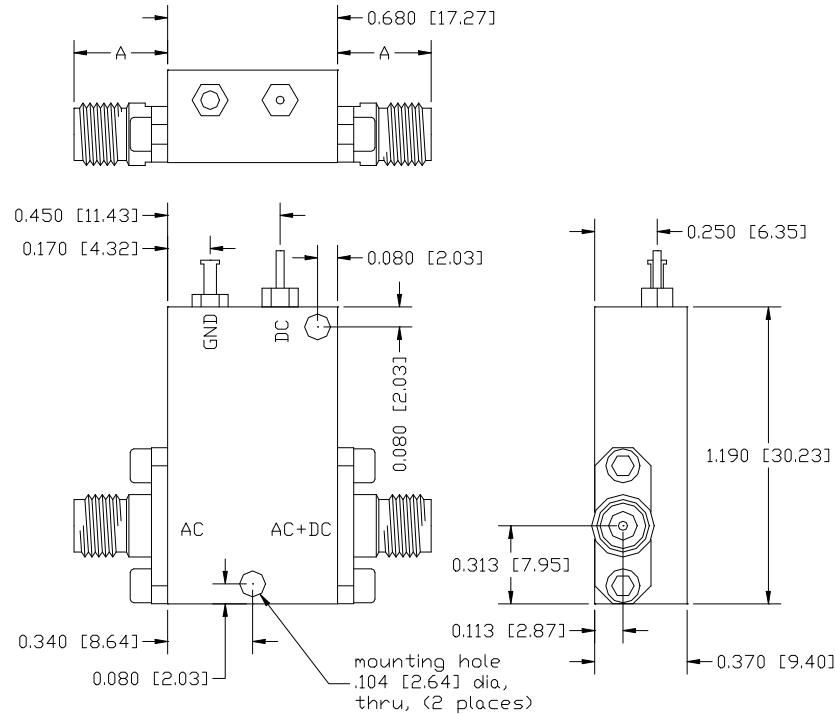
Warranty: One year. See Terms and Conditions of Sale for details.

5543 Typical Microwave Frequency Response

Linear sweep from 40 MHz to 65 GHz. AC connector is input port (port 1).
AC + DC connector is output (port 2). Configured with 2.4mm connectors on input and output.



5543 Mechanical Dimensions



Dimensions depend on whether connector type is 2.92mm or 2.4mm and male or female. (connectors shown are female)

Connector Type	Dimension A	
	female	male
2.92mm	.375 [9.53]	.507 [12.88]
2.4mm	.430 [10.92]	.513 [13.03]

All dimensions in inches and [millimeters]
Tolerance = ±.005 inches [0.13mm]

Ordering Information

Model Number	Connector Configuration*		
	AC Connector	AC+DC Connector	DC Connection
5543-219	2.92mm J	2.92mm J	Solder Pin
5543-223	2.92mm J	2.92mm P	Solder Pin
5543-227	2.92mm P	2.92mm J	Solder Pin
5543-229	2.92mm P	2.92mm P	Solder Pin
5543-202	2.4mm J	2.4mm J	Solder Pin
5543-206	2.4mm J	2.4mm P	Solder Pin
5543-211	2.4mm P	2.4mm J	Solder Pin
5543-213	2.4mm P	2.4mm P	Solder Pin

*Other connector configurations may be available on request.

J = Jack/Female, P = Plug/Male

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