Model 5500 Series
DC Blocks

- **0.7 kHz to > 26 GHz**
- **8 ps Risetime**

The Model 5500 Series of DC Blocks is composed of extremely broadband, coaxial blocking capacitors. Due to the coaxial construction, excellent microwave and very fast risetime responses are achieved. The 5508-100 has a -3 dB bandwidth in excess of 26 GHz and a risetime faster than 8 ps. Large capacitance values up to 2.2 μF are available which give -3 dB low frequency cutoffs as low as 0.7 kHz.

Model	**5500A-110**	**5501A-110**	**5508-110**
Capacitance	0.02 μF	0.22 μF	2.2 μF
Tolerance	20 %	-50, +80%	-50, +80%
DC Voltage	50 V max.	50 V max.	16 V max.
BW (-3 dB) *guaranteed*	> 26 GHz 20 GHz min.	> 26 GHz 20 GHz min.	> 26 GHz 20 GHz min.
Low Freq -3 dB	80 kHz	7 kHz	0.7 kHz
Risetime	10 ps	10 ps	< 8 ps
Insertion Loss	See S_{21} plots < 0.5 dB max. 100 MHz to 2 GHz is guaranteed		
Delay	155 ps, see S_{21} group delay plots for typical responses		
Impedance	50 Ω		
Return Loss	See S_{11} plots for typical responses		
Temp. Range	-55 C to +125 C, operating and storage		
Dimensions	37.1 mm x 12.7 mm x 12. 7mm sq. (1.46” x 0.5” x 0.5”) including connectors		
Warranty	One Year. See Terms and Conditions of Sale for details.		

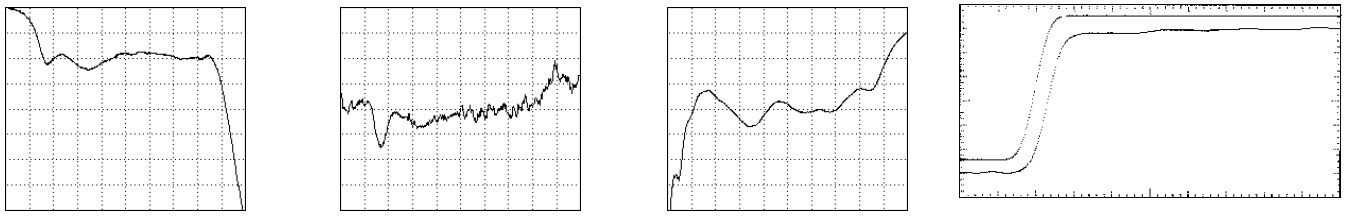
Ordering Information

Model Number	**Connector Configuration** *
5500A-110	SMA jack (f) — plug (m)
5501A-110	SMA jack (f) — plug (m)
5508-110	SMA jack (f) — plug (m)

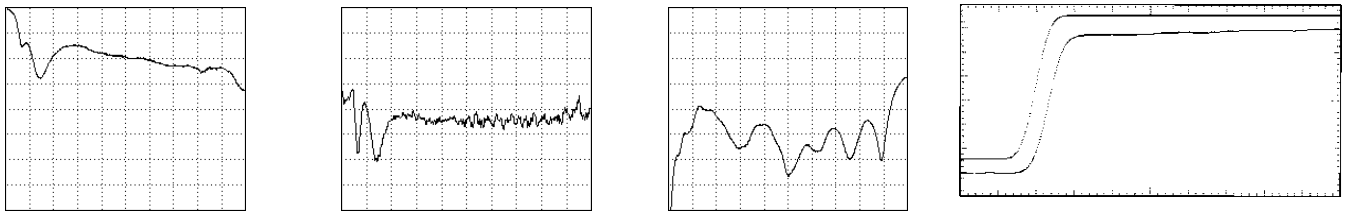
* Other connector combinations are available on request.

Notes
[1] Parameters listed are typical values. Max/min limits for capacitance, bandwidth and insertion loss are guaranteed.
[2] Not recommended for frequency domain applications above 26 GHz due to higher order resonances in SMAs.
[3] Response plots are of samples pulled at random from production lots.
[4] Frequency responses measured using a Wiltron 37369A 40 MHz - 40 GHz, vector network analyzer.
[5] 10 ps risetime step responses measured using a PSPL Model 4015C pulse generator and an HP-54124A, 50GHz oscilloscope.

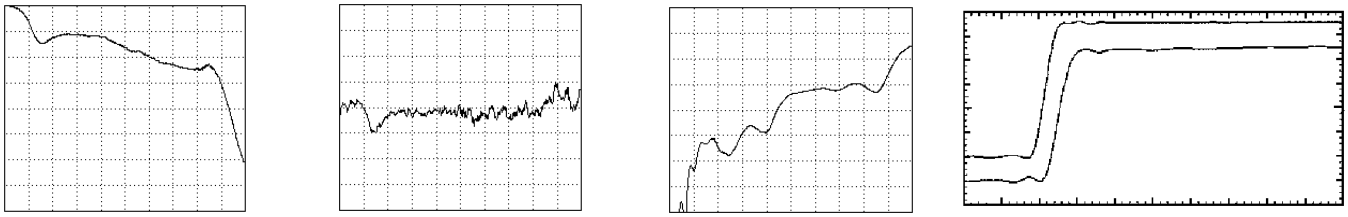
Insertion Loss	Group Delay	Return Loss	10 ps Step Response
0.25 dB/div	5 ps/div	5 dB/div	top/bottom=in/out, 20 ps/div
Linear sweep from 40 MHz to 25 GHz, 2.5 GHz/div			



Model 5500A, 0.02 μF, 50 V DC Block



Model 5501A, 0.22 μF, 50 V DC Block



Model 5508, 2.2 μF, 16 V DC Block