

PSPL5500 Series DC Blocks

PSPL5500A, PSPL5501A, PSPL5508 Datasheet



The PSPL5500 Series of DC Blocks is composed of extremely broadband, coaxial blocking capacitors. Due to the coaxial construction, excellent microwave and very fast rise time responses are achieved. The PSPL5508 has a -3 dB bandwidth in excess of 26 GHz and a rise time faster than 8 ps. Large capacitance values up to 2.2 μF are available that give -3 dB low frequency cutoffs as low as 0.7 kHz.

Key performance specifications

- 0.7 kHz to > 26 GHz
- 8 ps Risetime

Typical performance

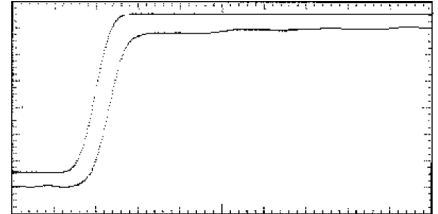
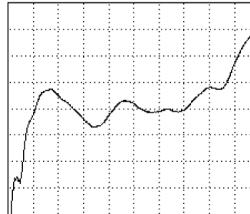
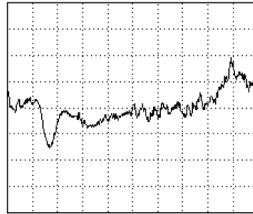
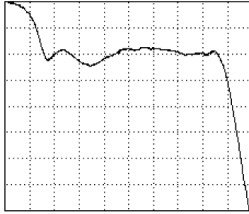
Insertion Loss
 0.25 dB/div,
 40 MHz to 25GHz,
 2.5 GHz/div

Group Delay
 5 ps/div,
 40 MHz to 25GHz,
 2.5 GHz/div

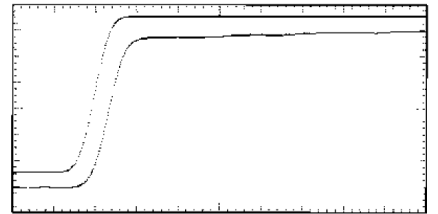
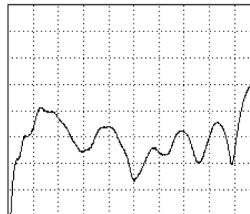
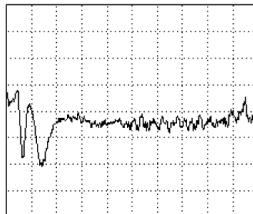
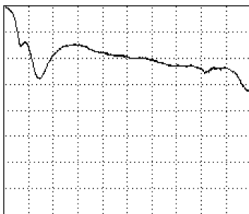
Return Loss
 5 dB/div,
 40 MHz to 25GHz,
 2.5 GHz/div

10 ps Step Response
 Top: In
 Bottom: Out
 20 ps/div

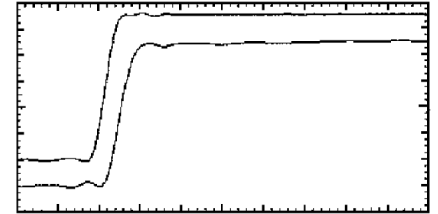
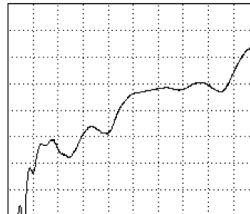
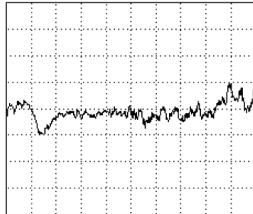
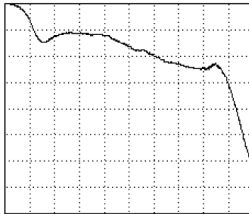
PSPL5500A



PSPL5501A



PSPL5508

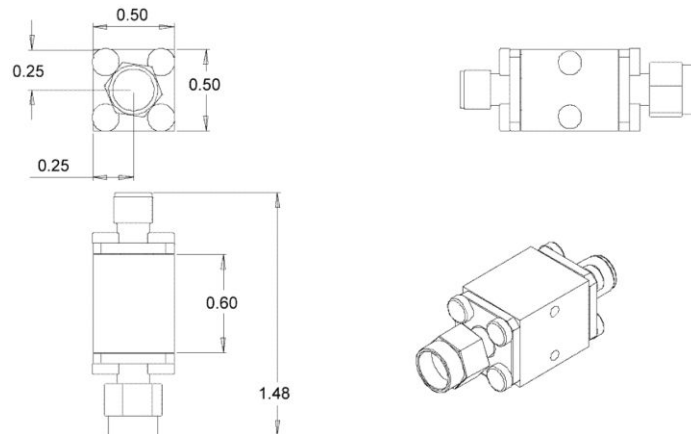


Specifications

All specifications apply to all models unless noted otherwise.

Parameter ¹	PSPL5500A	PSPL5501A	PSPL5508
Capacitance	0.02 μ F	0.22 μ F	2.2 μ F
Tolerance	20 %	-50, +80%	-50, +80%
DC Voltage	50 V max.	50 V max.	16 V max.
Type	inner	inner	inner
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		
Connectors	SMA jack (f) & plug (m)		
Warranty	One Year		

Mechanical dimensions



¹ Parameters listed are typical values. Max/min limits for capacitance, bandwidth and insertion loss are guaranteed.

Ordering information

Models

PSPL5500A	50 V DC block, 80 kHz
PSPL5501A	50 V DC block, 7 kHz
PSPL5508	16 V DC block

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