

Ultra-Broadband DC Block

PSPL5509 Datasheet



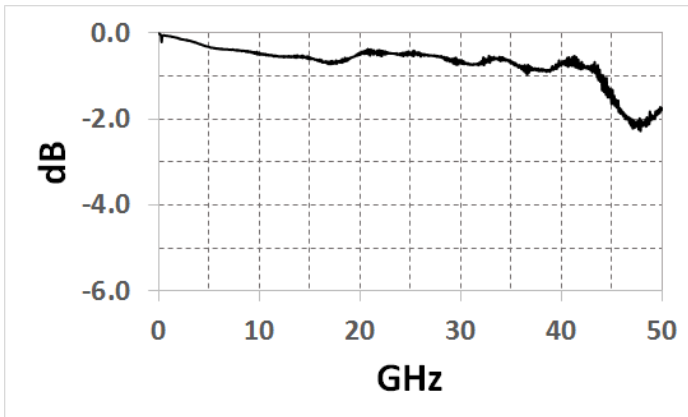
The PSPL5509 DC Block is an ultra-broadband inner conductor DC block with a flat frequency response over many decades up to 50 GHz. It is available in a choice of 2.92 mm or 2.4 mm connectors.

Key performance specifications

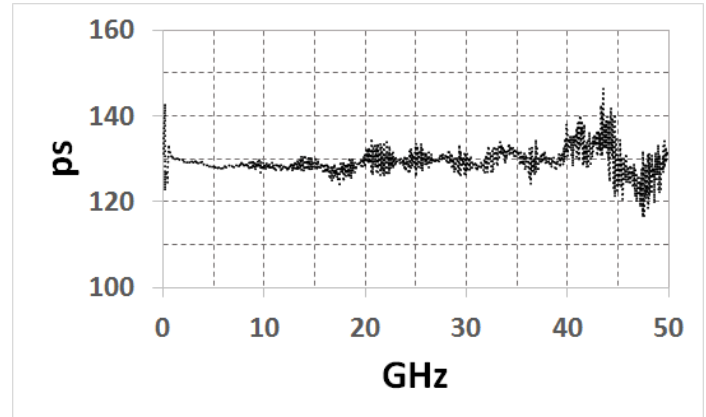
- 7 kHz to 50 GHz Bandwidth
- 5 ps Rise time
- 1 dB Insertion Loss to 40 GHz

Typical performance

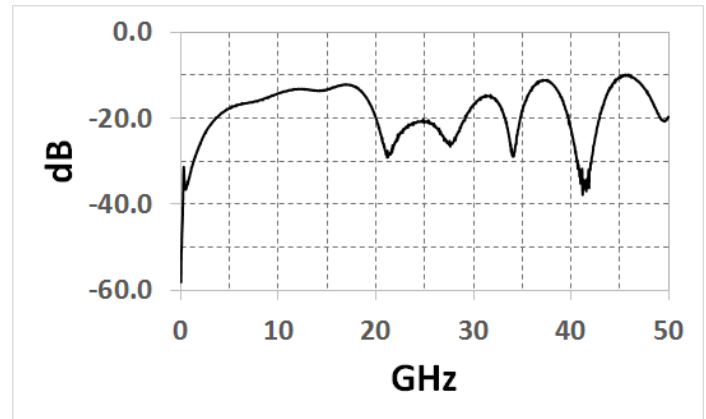
The following figure shows the Insertion Loss from 40 MHz to 50 GHz (2.4 mm connectors).



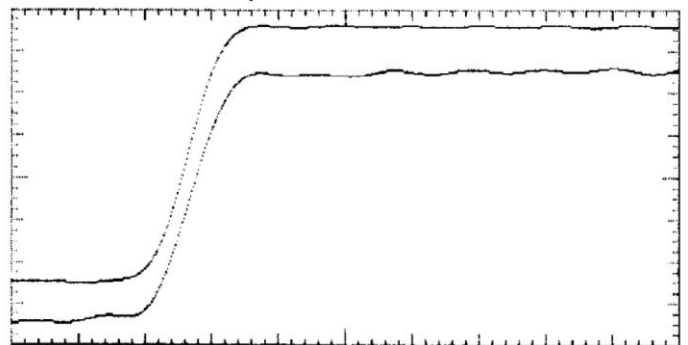
The following figure shows the Group Delay from 40 MHz to 50 GHz (2.4 mm connectors).



The following figure shows the Return Loss from 40 MHz to 50 GHz (2.4 mm connectors).



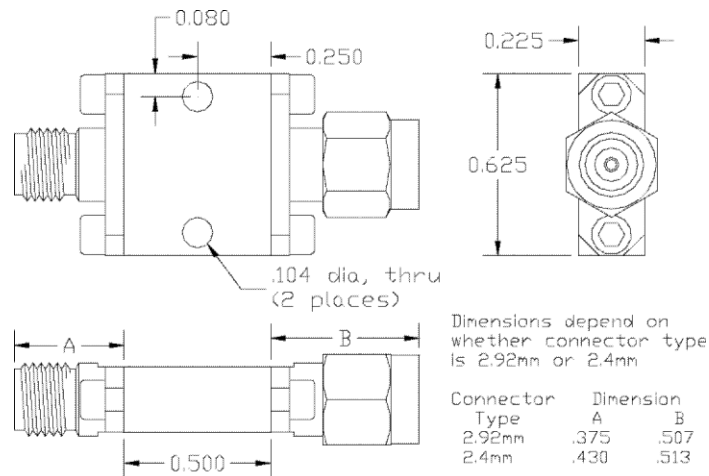
The following figure shows the step response to a 15 ps rise time input at 10 ps/div.



Specifications

Parameter ¹	Description
Capacitance	0.22 μ F
Voltage	16 V maximum
Insertion Loss (all connector types) (2.4 mm only)	<1 dB typical, $f < 40$ GHz 2 dB maximum at 40 GHz 3 dB maximum at 50 GHz
Low Frequency (-3 dB)	7 kHz
Rise time (10% - 90%)	5.1 ps
Delay	126 ps
Impedance	50 Ω
Return Loss	See Typical performance
Dimensions 2.92 mm 2.4 mm	35.1 x 15.9 x 7.9 mm 36.7 x 15.9 x 7.9 mm
Warranty	One year

Mechanical dimensions



¹ Parameters listed are typical values. The maximum and minimum limits for insertion loss are guaranteed.

Ordering information

Models

PSPL5509	DC Block
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Options

Two options are required, a voltage option and a connector option.

PSPL5509 16V	16 V blocking voltage
PSPL5509 240JP	2.4 mm connectors jack (f) & plug (m)
PSPL5509 292JP	2.92 mm connectors jack (f) & plug (m)

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