

40 GHz Attenuator

PSPL5510K Datasheet

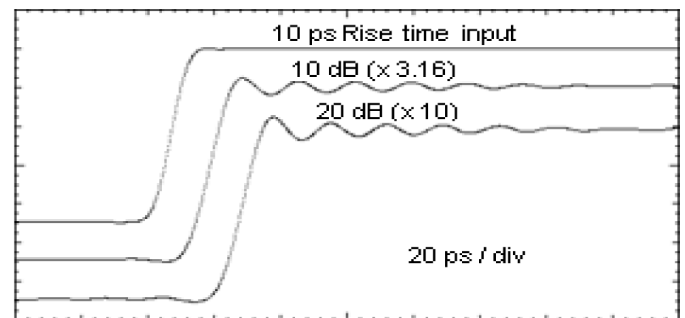
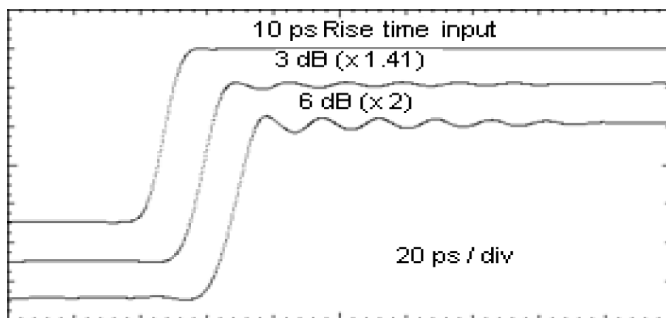
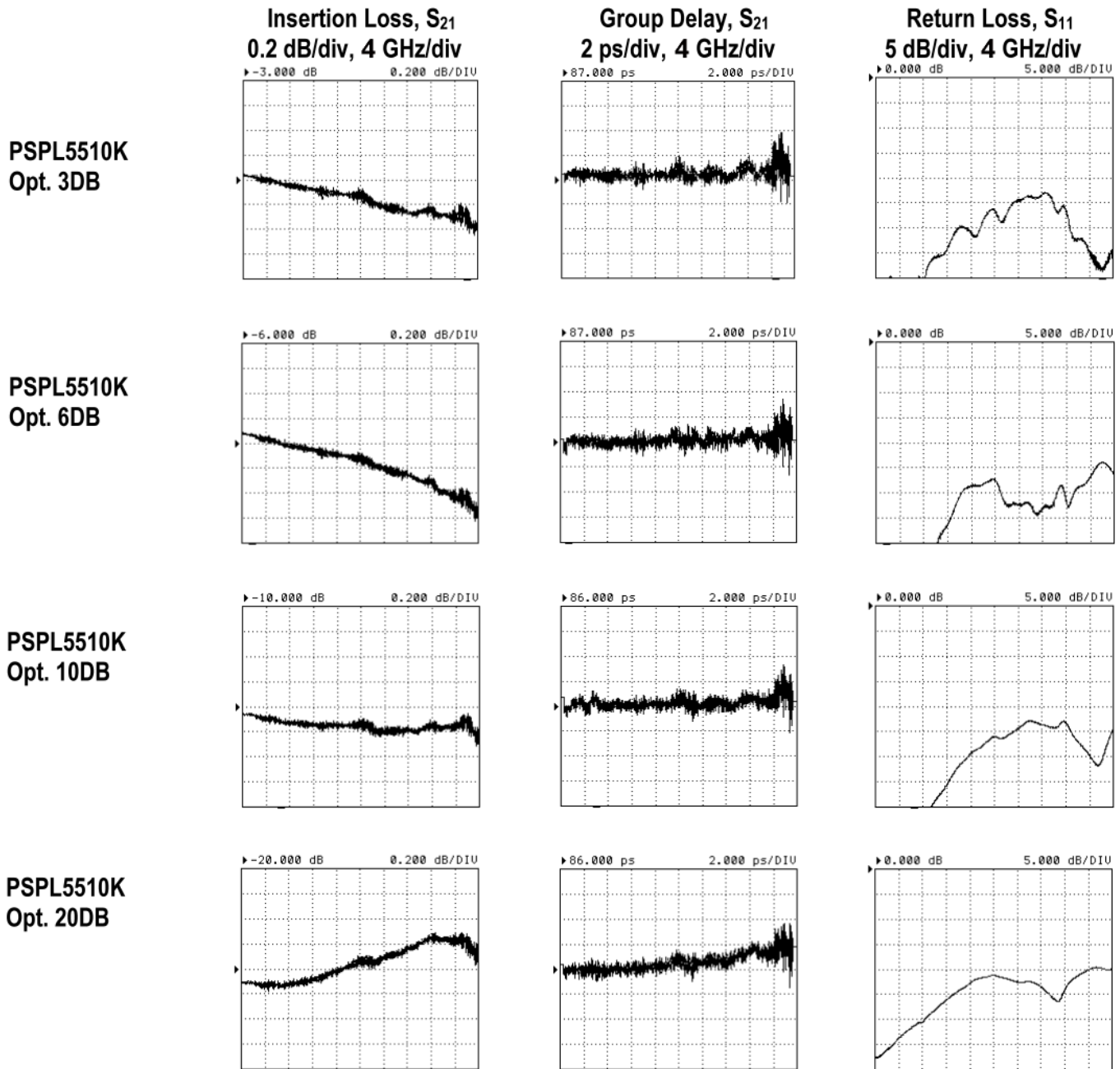


The PSPL5510K Attenuators address a need that has been totally ignored by other microwave component manufacturers who specify their products in the frequency domain, but ignore the time domain responses. For time domain measurements, it is important to also know the transient response of attenuators used in a test set-up. These 2.92 mm attenuators have 5 ps rise times and are recommended for measuring pulses with rise times of 15 ps or slower. For frequency domain measurements, the useful frequency range is DC to 40 GHz. The 2.92 mm connector is compatible with SMA and 3.5 mm connectors.

Key performance specifications

- 2.92 mm connectors
- DC to 40 GHz
- 5 ps Rise time

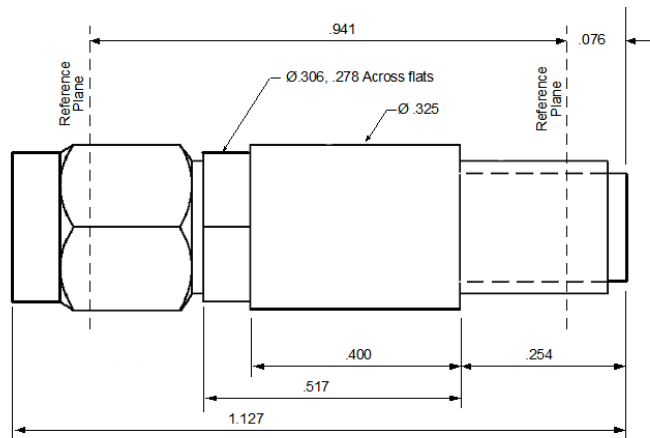
Typical performance



Specifications

Parameter ¹	Value
Values available	3, 6, 10, and 20 dB
Frequency range	DC to 40 GHz
Connectors	2.92 mm, jack (f) & plug (m)
Rise time (10% to 90%)	5 ps typical, when tested with 10 ps rise time pulse
Impedance - DC	50 Ω, < ±1 Ω typical, +7.5 Ω / -6.5 Ω maximum
Delay	87 ps
DC Attenuation accuracy	±0.5 dB, max. limits guaranteed
Return loss –DC VSWR – DC	> 36 dB typ, 23 dB min < 1.03 typ, 1.15 max
Attenuation Flatness (see Typical performance plots)	< ±0.5 dB, f < 18 GHz < ±1 dB, f < 40 GHz
Return Loss – AC (see Typical performance plots)	> 20 dB, f < 18 GHz > 15 dB, f < 40 GHz
Max. Power Input	2 W avg at 20 °C, derated linearly to 1 W at 85 °C, 50 W peak for < 0.1 μs pulse
Temperature Range	-55 to +85 °C operating, -55 to +125 °C storage, 0.001 dB/dB/ °C temp. coeff.
Dimensions	28.8 mm length, 8 mm diameter
Weight	8 gm
Material	Stainless steel
Serial number	Yes
Warranty	One Year

Mechanical dimensions



2.92 mm connectors, jack-plug only; all dimensions in inches.

¹ All parameters listed are typical unless maximum or minimum guaranteed limits are provided.

Ordering information

Models

PSPL5510K Attenuator, 40 GHz

Options

Opt. 3DB 3 db attenuation
Opt. 6DB 6 db attenuation
Opt. 10DB 10 db attenuation
Opt. 20DB 20 db attenuation

ASEAN / Australasia (65) 6356 3900
Belgium 00800 2255 4835*
Central East Europe and the Baltics +41 52 675 3777
Finland +41 52 675 3777
Hong Kong 400 820 5835
Japan 81 (3) 6714 3010
Middle East, Asia, and North Africa +41 52 675 3777
People's Republic of China 400 820 5835
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Taiwan 886 (2) 2722 9622

Austria 00800 2255 4835*
Brazil +55 (11) 3759 7627
Central Europe & Greece +41 52 675 3777
France 00800 2255 4835*
India 000 800 650 1835
Luxembourg +41 52 675 3777
The Netherlands 00800 2255 4835*
Poland +41 52 675 3777
Russia & CIS +7 (495) 6647564
Sweden 00800 2255 4835*
United Kingdom & Ireland 00800 2255 4835*

Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777
Canada 1 800 833 9200
Denmark +45 80 88 1401
Germany 00800 2255 4835*
Italy 00800 2255 4835*
Mexico, Central/South America & Caribbean 52 (55) 56 04 50 90
Norway 800 16098
Portugal 80 08 12370
South Africa +41 52 675 3777
Switzerland 00800 2255 4835*
USA 1 800 833 9200

* European toll-free number. If not accessible, call: +41 52 675 3777

Updated 10 April 2013

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12 Aug 2014

1PW-30547-0

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