

Low-Pass Risetime Filter

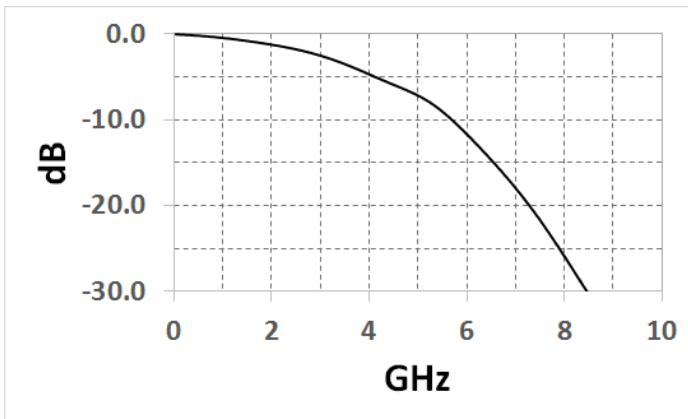
PSPL5915 Datasheet



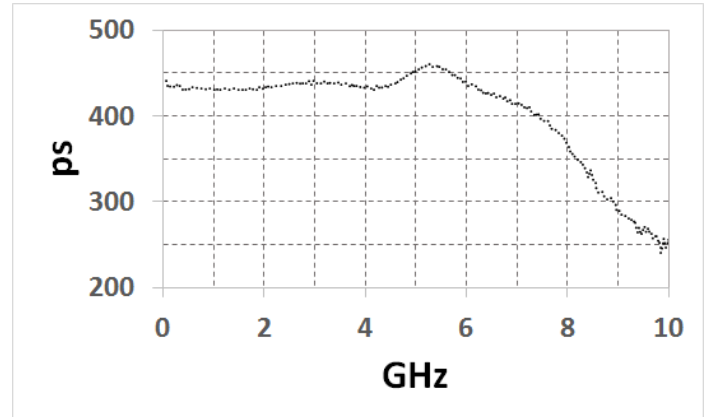
The PSPL5915 Low-Pass Rise time Filter is designed for use in high-speed digital networks and telecom systems. The -3 dB bandwidth of the standard filters is $0.75 \times \text{Bit Rate}$. These filters are a proprietary, absorption filter design that has attenuation and group delay responses similar to those of the Bessel-Thomson filter. Bessel-Thomson filters filter by reflection and thus can cause increased bit error rates and eye diagram closure due to multiple reflections. By contrast, the PSPL5915 filters by absorption. It has excellent impedance matches and very good return losses, both within and above the filter pass band.

Typical performance

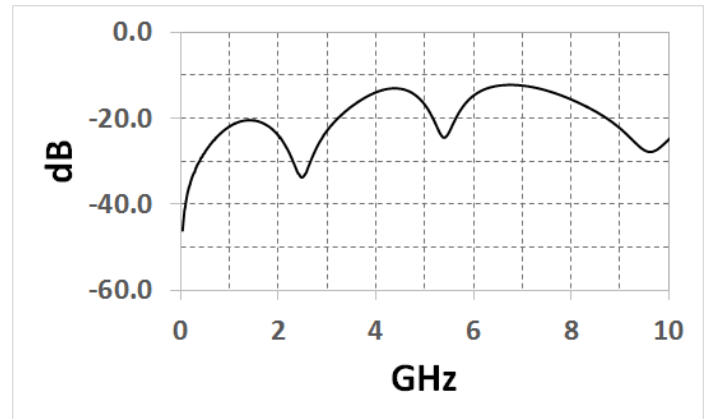
The following figure shows the Insertion Loss of the PSPL5915 Option 100PS.



The following figure shows the Group Delay of the PSPL5915 Option 100PS.



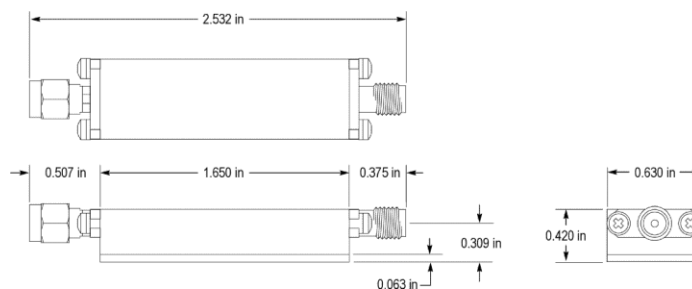
The following figure shows the Return Loss of the PSPL5915 Option 100PS.



Specifications

Parameter ¹	Value
Return Loss	>15 dB at f_0 , typical
Risetime (10 to 90%)	Specified by option
Bandwidth (-3 dB), f_0	0.35/Risetime
f_0 Tolerance at 23 C	2%, 5% $f > 4$ GHz
Max. Power	23 dBm at f_0
Max Current	1 A
Max Voltage	50 V DC
Insertion Loss	< 0.02 dB at DC
Impedance	50 Ω
Connectors	SMA jack (f) & plug (m)
Temperature	-25 C to + 90 C
Warranty	One year

Mechanical dimensions



Ordering information

Models

PSPL5915 Low-Pass Filter

PSPL5915 filter options

60PS	60 ps rise time (5.83 GHz, 3 dB frequency)
100PS	100 ps rise time (3.5 GHz, 3 dB frequency)
200PS	200 ps rise time (1.75 GHz, 3 dB frequency)
300PS	300 ps rise time (1.17 GHz, 3 dB frequency)
330PS	330 ps rise time (1.06 GHz, 3 dB frequency)

¹ All parameters listed are typical unless max/min guaranteed limits are provided.

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 3086
Middle East, Asia, and North Africa +41 52 675 3777
People's Republic of China 400 820 5835
Republic of Korea +822 6917 5084, 822 6917 5080
Spain 00800 2255 4835*
Taiwan 886 (2) 2656 6688

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

For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tek.com.

Copyright © Tektronix, Inc. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks, or registered trademarks of their respective companies.

