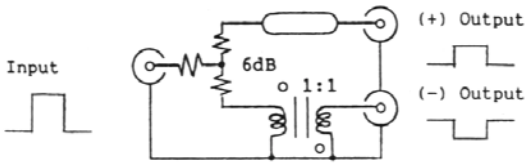
11 GHz Differential Pulse Splitter

PSPL5320B Datasheet



The Model 5320B BALUN is a broadband differential pulse splitter. A signal fed into the 50 Q input is split equally into two 50 Q outputs. One output is the same polarity as the input, while the other output is inverted in polarity. The 5320B has a fast 31 ps risetime and a bandwidth from 5 kHz to 11 GHz. The 5320B can also be used as an algebraic differential signal combiner. All three ports are matched to 50Ω.

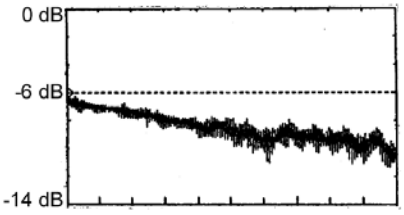
Specifications

Parameter	Value
Risetime (10%-90%)	31 ps typical, 45 ps max.
Bandwidth (-3 dB)	11 GHz typical
Diff. Balance	< 0.2 dB, t < 7 ns 0.5 dB, t > 7 ns
Insertion Loss	6.5 dB nominal
Impedance	50 Ω
Refl. Coeff. (35 ps TDR) input (+) output (-) output	< 15% peak-to-peak, t < 150 ps -2%, t > 7 ns +3%, t > 8 ns -12%, t > 1 ns
Max. Input	0.75 Watts
Delay	4.1 ns
Diff. Delay Balance	± 5 ps max.
Sag Time Constant	35 µs (1/e)
Return Loss	0.1< f < 10 GHz, RL > 20 dB -1.5 dB/GHz*f(GHz)
Low Freq. Cutoff	5 kHz (-3 dB)
Connectors	SMA jacks (f)
Weight	2.7 lbs (1.2 kg)
Dimensions	2” x 4” x 8” (5.1 x 10.2 x 20. 3 cm)
Warranty	One year

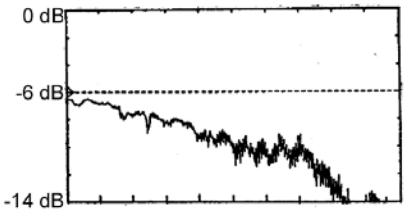
Note: All parameters listed are typical unless max/min guaranteed limits are provided.

Typical Performance

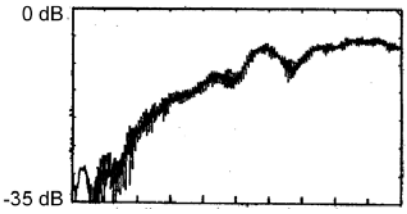
Insertion Loss: Input to (+) Output
2 dB/div and 2 GHz/div



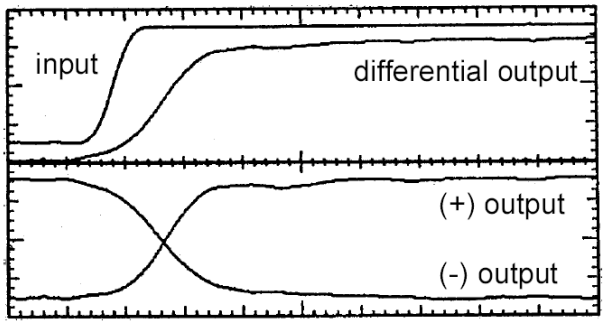
Insertion Loss: Input to (-) Output
2 dB/div and 2 GHz/div



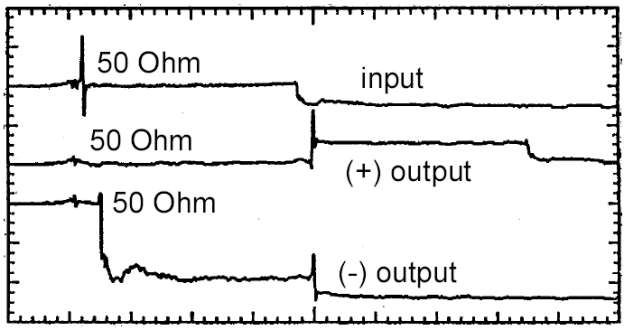
Return Loss
5 dB/div and 2 GHz/div



Transmission Response
to 10 ps risetime input step, 20 ps/div



35 ps TDR
5% rho/div and 2 ns/div



Ordering information

Model	Description
PSPL5320B	11 GHz Differential Pulse Splitter

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
Republic of Korea 001 800 8255 2835
Spain 00800 2255 4835*
Taiwan 886 (2) 2722 9622
* European toll-free number. If not accessible, call: +41 52 675 3777

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

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