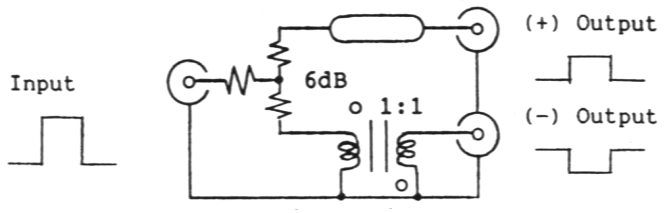
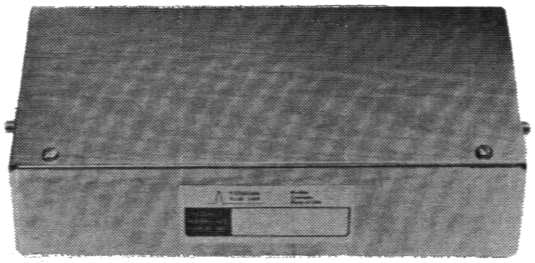
Model 5320B BALUN

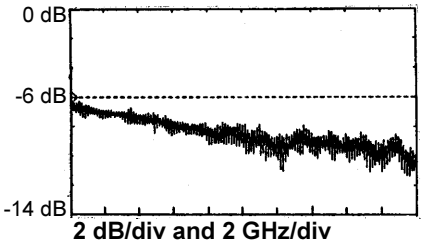
Differential Pulse Splitter



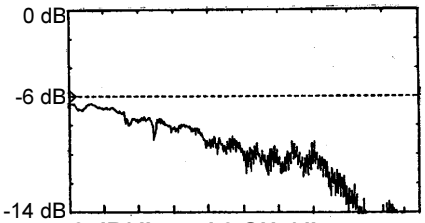


The Model 5320B BALUN is a broadband differential pulse splitter. A signal fed into the 50 Ω input is split equally into two 50 Ω outputs. One output is the same polarity as the input, while the other output is inverted in polarity. The 5320B has a fast 31 ps risetime and a bandwidth from 5 kHz to 11 GHz. The 5320B can also be used as an algebraic differential signal combiner. All three ports are matched to 50 Ω. For additional details, see PSPL Application Note AN-8.

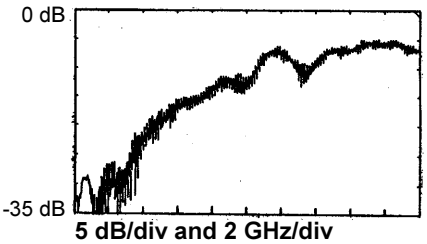
Risetime (10%-90%)	31 ps typical, 45 ps max.	**Diff. Delay Balance**	± 5 ps max.
Bandwidth (-3 dB)	11 GHz typical	**Sag Time Constant**	35 µs (1/e)
Diff. Balance	< 0.2 dB, t < 7 ns 0.5 dB, t > 7 ns	**Return Loss**	0.1< f < 10 GHz RL > 20 dB -1.5 dB/GHz*f(GHz)
Insertion Loss	6.5 dB nominal	**Low Freq.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



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



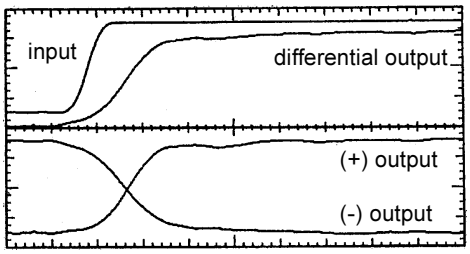
2 dB/div and 2 GHz/div
Insertion Loss: Input to (-) output



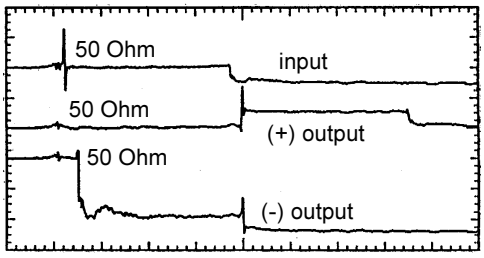
5 dB/div and 2 GHz/div
Input Return Loss

Ordering Information

Model Number
5320B-104



20 ps/div
Transmission Response to 10 ps
Risetime step into input port



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

Notes

[1] Parameters listed are typical values. Guaranteed only when max/min limits are given. **[2]** 10 ps risetime step response and TDR waveform measured using a PSPL Model 4015B pulse generator and an HP-54124A 50 GHz, 9.4 ps digital sampling oscilloscope. **[3]** Frequency response measured using a Wiltron 5447A 10 MHz - 20 GHz network analyzer.

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