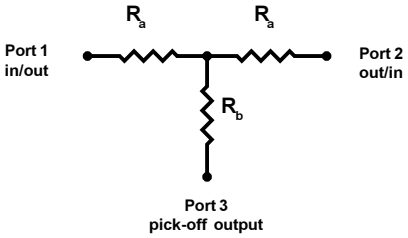
Model 5340-10dB
Pick-Off Tee

- **10 dB**
- **50 ps, 8 GHz**
- **Z-matched**



The Model 5340-10dB is a broadband, resistive, Pick-Off, Power Divider Tee. The pick-off port 3 output is a small replica of the signal passing through the tee. The 5340 is an impedance-matched tee consisting of three precision, 1% tolerance resistors. The 5340's input/output impedance seen either on port 1 or port 2 is precisely 50 Ω.

Pick-Off Insertion Loss DC (port 1 or 2 to port 3)	10 dB ±0.1 dB	**In / Out Impedance at DC** (port 1 or port 2)	50.0 Ω ±0.3 Ω
Pick-Off Voltage Ratio	3.16 x	**S_{11} or S_{22} Return Loss, DC**	50 dB
Thru Line Insertion Loss at DC S_{21} (port 1 to port 2)	3.3 dB ±0.05 dB	**S_{11} or S_{22} Return Loss, AC**	(see typical response, p.2)
Thru Line Risetime	50 ps	**Thru Line Resistors, Ra**	9.38 Ω
Pick-Off Risetime	Not specified; see note **[1]** for details	**Pick-Off Resistor, Rb**	78.4 Ω
Min Signal Risetime [1]	80 ps	**Max Power Input, average**	0.6 W
Thru Line Bandwidth (-3 dB)	8 GHz	**Connectors**	SMA jacks (f), see drawing; other sex configurations available on special order
Pick-Off Bandwidth (±1 dB)	10 GHz		
Pick-Off Bandwidth (3 dB)	13 GHz	**Warranty**	One Year. See Terms and Conditions of Sale for details
Temperature Range	-55 C to +70 C operating at full power, derate to 0 W at 125 C. -55 C to +125 C, storage		

Ordering Information

Model Number
5340-104-10DB

Notes

[1] PSPL does not recommend using the pick-off tee for input signals with risetimes faster than 80 ps. This tee can be used with faster risetimes, but there will be waveform distortions. With faster risetimes, either the thru-line bandwidth is insufficient and/or the pick-off output will no longer be a faithful representation of the input signal. The pick-off output risetime will be too fast and there will be some overshoot and ringing.

[2] All parameters listed in this table are typical. All DC specs. are guaranteed and are based upon resistor tolerances and using 50.00 Ω source and load impedances.

[3] DC max/min specifications are guaranteed. PSPL also tests the S21, S31 and S11 frequency responses and confirms they are similar to the typical values listed here. All other parameters are typical only.

Picosecond Pulse Labs

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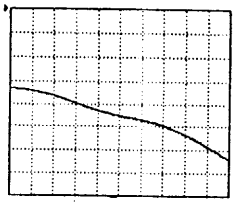
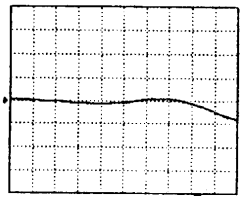
Frequency Domain Responses from 40 MHz to 10 GHz
1 GHz/div Insertion Loss plots = 1 dB/div, Return Loss plot = 6 dB/div

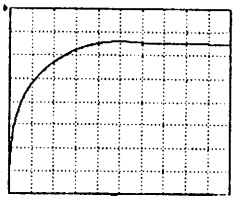
Thru-Line Insertion Loss



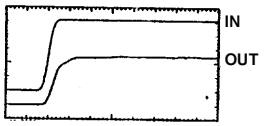
Pick-Off Insertion Loss



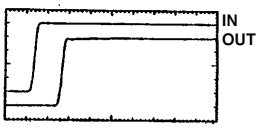
Thru-Line Return Loss



Thru-Line 25 ps in, 50 ps/div



Pick-Off 50 ps in, 200 ps/div



5340 Mechanical Drawing