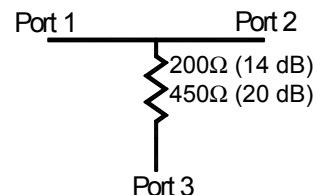
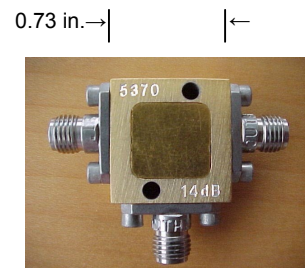


- Low Insertion Loss
- DC to >25 GHz
- 5x and 10x Pickoffs
- <17 ps Risetime

The PSPL model 5370 Pickoff Tee is an Ultra-broadband Resistive Coupler, which provides a scaled (5x or 10x) replica of signals passing through the tee. The device exhibits excellent through-line insertion loss and pickoff ratio stability for frequencies from DC to >25 GHz. The 5370 features good impedance match across a wide range of frequencies, with return loss typically >15 dB from 0-25 GHz.



Parameter	14 dB Tee	20 dB Tee
Pickoff Insertion Loss (S31)	14.8 dB, nominal DC 15 ± 1 dB, 0-25 GHz, *	20.4 dB, nominal DC 20.5 ± 2.0 dB, 0-25 GHz, *
Through-line Insertion Loss (S21)	0.8 dB, nominal DC 0.8 (+0.2,-1.0) dB, 0-25 GHz, *	0.4 dB, nominal DC 0.4 (+0.2,-1.2) dB, 0-25 GHz, *
Risetime (10% - 90%)	≤ 17 ps	≤ 17 ps
Return Loss (S11)	>20 dB, DC ≥ 15 dB, 0-10 GHz, * ≥ 12.5 dB, 10-25 GHz, *	>24 dB, DC ≥ 20 dB, 0-10 GHz, * ≥ 13 dB, 10-25 GHz, *
Pickoff Resistor	200±2% Ω, *	450±2% Ω *
Through-line Group Delay (S21)	193 (-5/+10) ps	
In/Out Impedance @ DC (port 1 or port 2)	41.7 Ω, nominal	45.5 Ω, nominal
Temperature Range	-55 to +90 °C Operating, -55 to +120 °C Storage	
Max Input Power, (Port 1 or 2, Avg)	2 W	4 W
Warranty	One Year, See Terms of Sale for details	

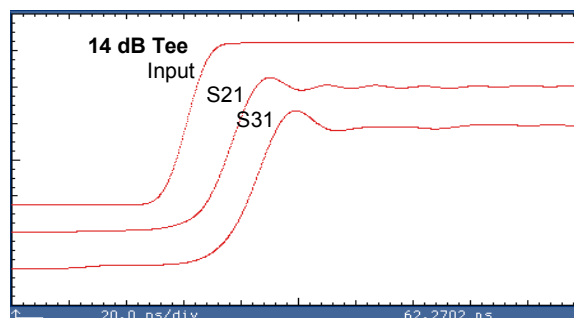
NOTE: The parameters listed above are typical values. The DC specs are valid only when used with 50 Ω source and terminations.

* Indicates Guaranteed Specifications

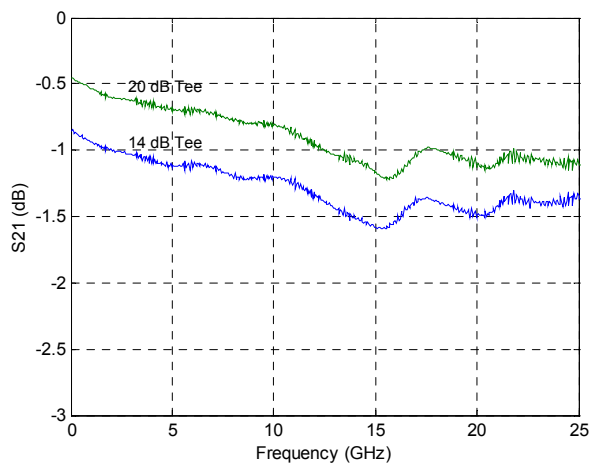
Ordering Information

Model Number	Connector Configuration*		
	Port 1	Port 2	Port 3
5370-104-14DB	SMA Jack (f)	Jack (f)	Jack (f)
5370-112-14DB	SMA Jack (f)	Plug (m)	Jack (f)
5370-104-20DB	SMA Jack (f)	Jack (f)	Jack (f)
5370-112-20DB	SMA Jack (f)	Plug (m)	Jack (f)

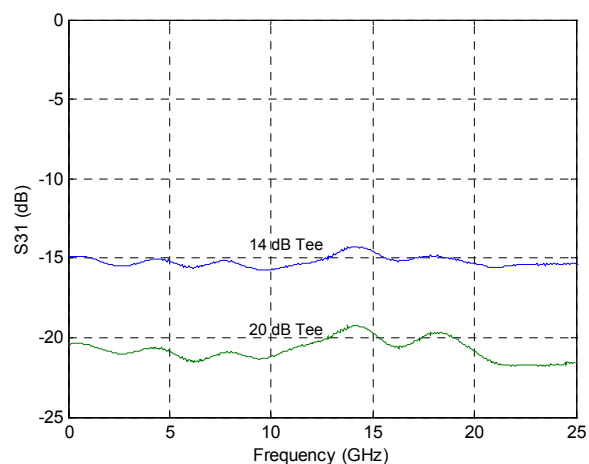
* Other connector combinations are available on request.



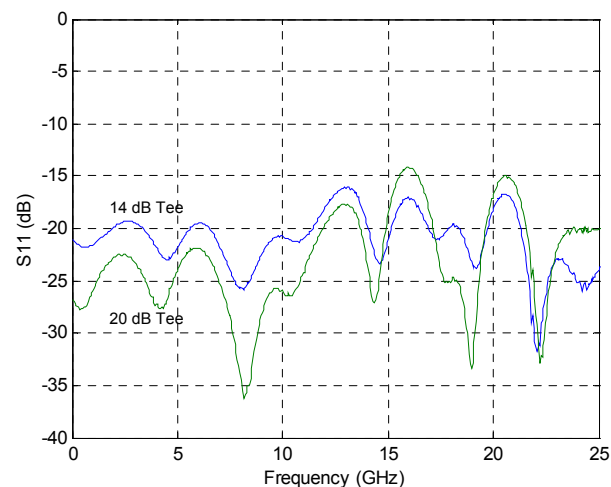
Transmission Responses to 15 ps risetime steps into Port 1



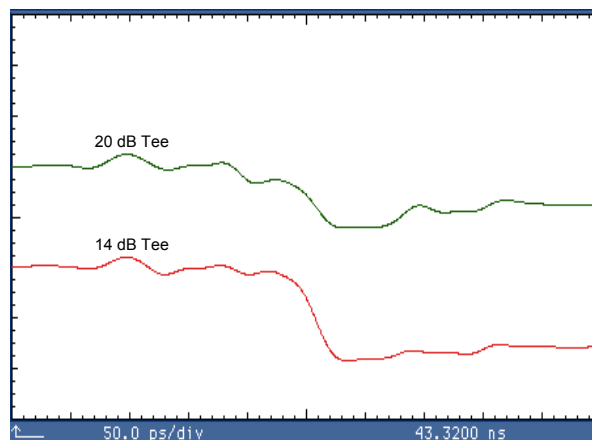
Insertion Loss, Through Path



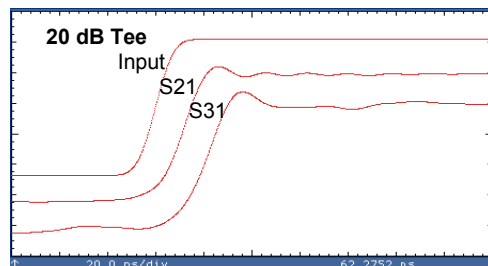
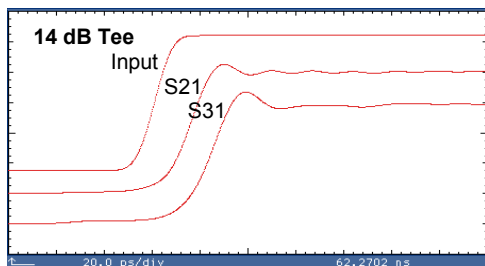
Insertion Loss, Pickoff Path



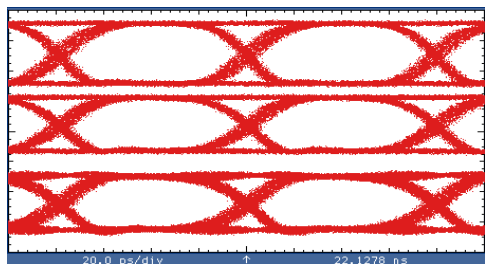
Return Loss, Ports 1 and 2



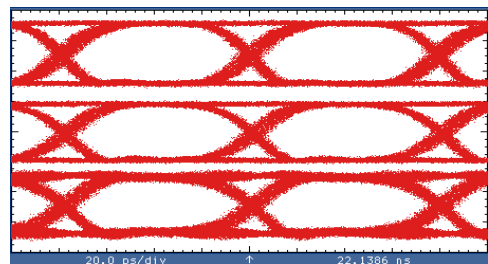
S11 Input TDR Response to 25 ps
Risetime Pulse, Scale 5% p/div,
Timebase, 50 ps/div



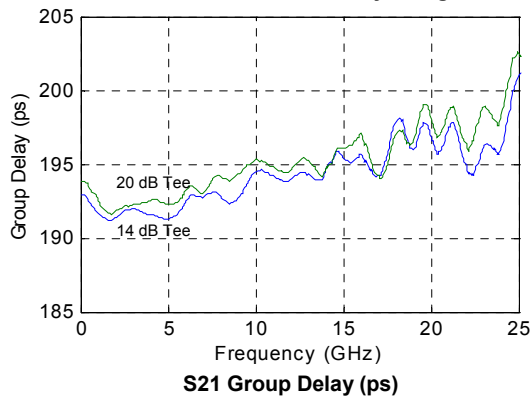
Transmission Responses to 15 ps risetime steps into Port 1. Timebase 20 ps/div, Pickoff Transmission (S31) scaled 5x (10x for 20 dB Tee). Measured with PSPL 4015C, 15 ps Pulse Generator & HP54750, 50 GHz Oscilloscope. See AN-5C for details.



Input Signal
Through Signal
Pickoff Signal



Eye Diagrams of 12.5 GBit/s Pseudo-Random Bitstream



5370 Mechanical Drawing

