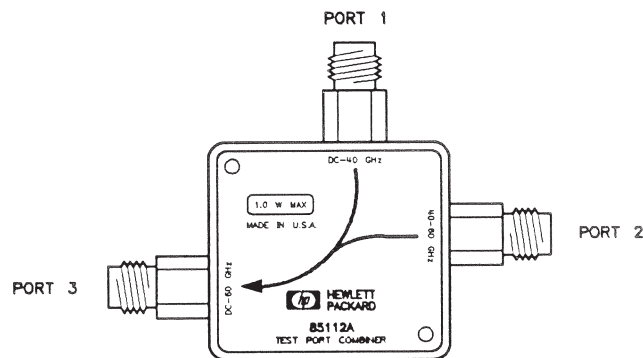


# Operating Note

## HP 85112A Test Port Combiner

The HP 85112A test port combiner enables an HP 8510 system to provide a single RF connection to a device under test from 0.045 to 60 GHz. In the HP 85109A on-wafer system, for example, the HP 85112A combines the RF test ports from the two test sets used in the system. Through its DC-to-40 GHz input, the combiner also provides a DC path for biasing on-wafer devices.



HP 85112A Test Port Combiner

## Typical Performance Characteristics

The characteristics below are intended to provide information useful in applying the combiner by giving typical but non-warranted performance parameters. They are not specifications.

Port	Frequency Range (GHz)	Connector Type	Port Match		Insertion Loss to Port 3	
			DC to 40 GHz	40 to 60 GHz	DC to 40 GHz	40 to 60 GHz
1	DC to 40 Input	2.4 mm (f)	9.7 dB	—	3.5 dB	—
2	40 to 60 Input	1.85 mm (f)	—	6.8 dB	—	5.5 dB
3	DC to 60 Output	1.85 mm (f)	14.0 dB	10.0 dB	—	—



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## Typical Performance Characteristics Cont'd

Maximum Power:	1W
DC Current Limit:	2A
DC Series Resistance of Bias Path:	Typically $1\Omega$
DC Voltage Limit:	100V
Pin Depth (all three ports)*	0.0001 to 0.00022 inch (0.0025 to 0.0056 mm)
Size:	2.5 cm x 3.0 cm x 1.3 cm
Weight:	71g (2.5 oz)

\*Hewlett-Packard 2.4 mm gauges are compatible with 1.85 mm connectors.