

559 Series Broadband Directional Couplers



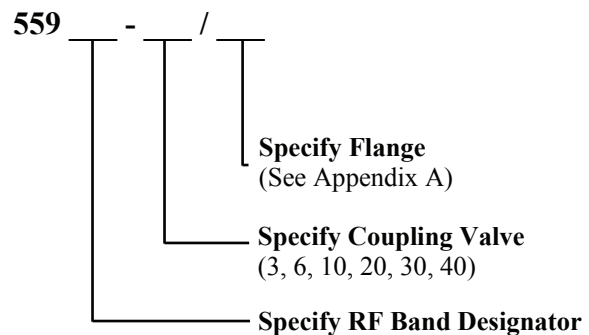
Features

- Broadband
- Low VSWR
- High Directivity
- Rugged Construction
- High Coupling Accuracy
- Calibrated Coupling Values
- Minimum Coupling Variation with Frequency

Description 559 Series Couplers

Mi-Wave's 559 series broadband directional couplers are broadwall multi-hole energy-coupling devices. The 559 series couplers are designed in 7 waveguide sizes from 18.0 to 110 GHz. Nominal couplings of 3 dB, 6 dB, 10 dB, 20 dB, 30 dB, and 40 dB are offered to complement specific test set requirements. Other custom configurations are available upon request.

Ordering Information



Applications

The 559 series directional couplers provide an efficient and convenient means for sampling a finite quantity of power flowing in a transmission line or for injecting a desired signal into the line.

Mi-Wave

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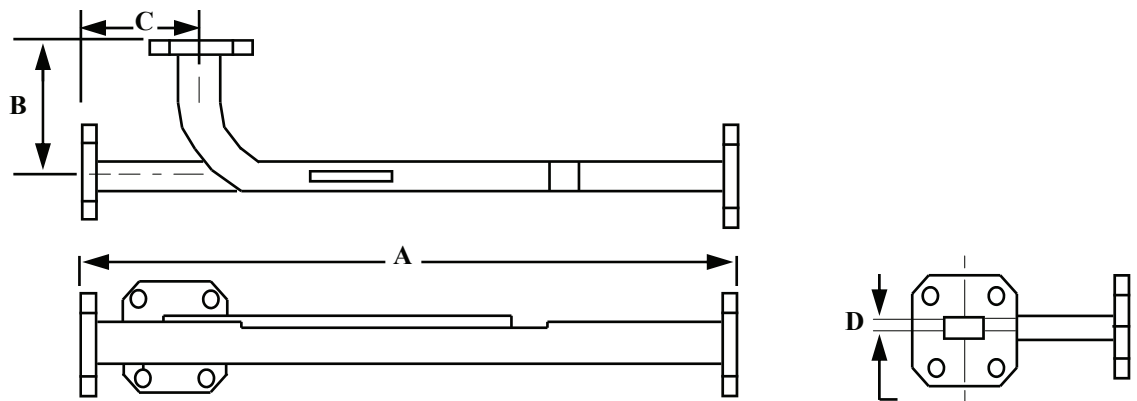
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559 Series Broadband Directional Couplers

Technical Specifications

Model Number	559K	559A	559B	559U	559V	559E	559W
Frequency Band (GHz)	18.0-26.5	26.5-40.0	33.0-50.0	40.0-60.0	50.0-75.0	60.0-90.0	75.0-110.0
Coupling (dB)	3, 6, 10, 20, 30, 40						
Coupling Variation (dB)	± 0.6	± 0.6	± 0.6	± 0.8	± 1.0	± 1.0	± 1.0
Coupling Accuracy (dB)	± 1.0	± 1.0	± 1.0	± 1.2	± 1.5	± 1.5	± 1.5
Directivity (dB) Typical	40	40	40	40	40	40	40
Main Line VSWR	1.05	1.05	1.05	1.10	1.10	1.10	1.10
Auxiliary Line VSWR	1.12	1.12	1.12	1.15	1.15	1.15	1.17



Dimensional Specifications

Model Number	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
559K/10, 20, 30, 40	11.50	292.0	2.00	50.8	1.50	38.1	.25	6.35
559K/3, 6 dB	12.75	323.9	2.00	50.8	1.50	38.1	.25	6.35
559A/10, 20, 30, 40	9.62	244.0	1.75	44.5	1.38	35.1	.16	4.06
559A/3, 6 dB	12.0	304.8	1.75	44.5	1.38	35.1	.16	4.06
559B/10, 20, 30, 40	8.40	213.0	1.64	41.7	1.30	33.0	.13	3.30
559B/3, 6 dB	10.25	259.1	1.64	41.7	1.30	33.0	.13	3.30
559U/10, 20, 30, 40	7.38	187.4	1.38	35.1	1.12	28.5	.11	2.80
559U/3, 6 dB	9.12	231.6	1.38	35.1	1.12	28.5	.11	2.80
559V/10, 20, 30, 40	6.25	159.0	1.13	28.6	0.88	22.4	.08	2.03
559V/3, 6 dB	7.25	184.1	1.13	28.7	0.88	22.4	.08	2.03
559E/10, 20, 30, 40	5.50	140.0	1.13	28.5	0.88	22.4	.07	1.78
559E/3, 6 dB	6.62	168.1	1.13	28.7	0.88	22.4	.07	1.78
559W/10, 20, 30, 40	4.50	114.0	1.00	25.4	0.81	20.6	.06	1.52
559W/3, 6 dB	5.50	139.7	1.00	25.4	0.81	20.6	.06	1.52

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