



Description

Each of Mi-Wave's 559 Series Broadband Directional Couplers are broadwall multi-hole energy-coupling devices. The 559 Series couplers are designed in 7 couplings of 3, 6, 10, 20, 30, 40 and 50 dB are offered to complement specific test set requirements. Other custom configurations are available upon request.

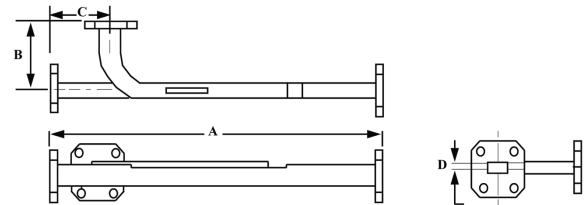
- Broadband
- Low VSWR
- High Directivity
- Rugged Construction
- High Coupling Accuracy
- Calibrated Coupling Values
- Minimum Coupling Variation with Frequency

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.

Dimensional Specifications

Model No.	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, 30, 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	8.6	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



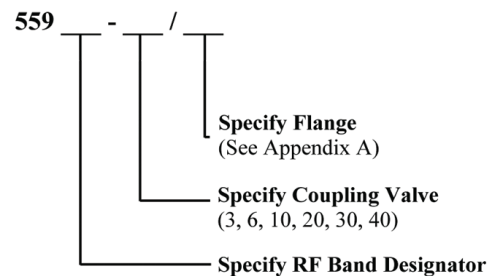
OTHER BANDS AVAILABLE:

- WR-90
- WR-75
- WR-51
- WR-34

Technical Specifications (typical)

Model No.	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)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
Coupling Accuracy (dB) (at center freq.)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
Directivity (dB) Typical	40	40	40	40	40	40	40
Main Line VSWR (typ)	1.05	1.05	1.05	1.10	1.10	1.10	1.10
Auxiliary Line VSWR (typ)	1.12	1.12	1.12	1.15	1.15	1.15	1.17

Ordering Information



*Coupling fluctuates +/- 1dB or +/- 5% whichever is greater