

### Description

Mi-Wave's 555 Series Bi-directional couplers are broadband, broadwall waveguide type. The 556 are split block type components with a multi-hold directivity. The 555 Series couplers are available in 3, 6, 10, 20, 30, and 40 dB coupling values for standard waveguide bands from 18 to 220 GHz.

- High Directivity
- Accurate Coupling
- Full Waveguide Bandwidth

### Applications

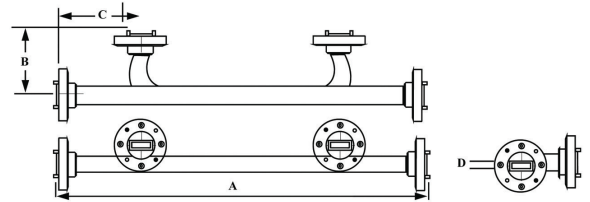
The 555 Series Bi-directional Couplers are used in applications that require precise sampling of both incident and reflected energy. The 3 dB couplers are especially useful in balanced mixer work where broadband power division of RF and LO signals is required to supply both sides of a balanced mixer unit. The 3 dB bi-directional couplers can provide full bandwidth power division.



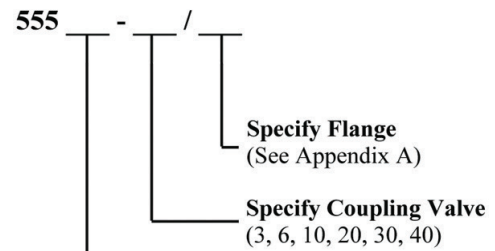
Dimensional Specifications								
Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
555A/10, 20, 30, 40	9.62	244.0	1.75	44.5	1.38	35.1	.16	4.06
555A/3, 6 dB	12.0	304.8	1.75	44.5	1.38	35.1	.16	4.06
555B/10, 20, 30, 40	8.40	213.0	1.64	41.7	1.30	33.0	.13	3.30
555B/3, 6 dB	10.25	259.1	1.64	41.7	1.30	33.0	.13	3.30
555U/10, 30, 30, 40	7.38	187.4	1.38	35.1	1.12	28.5	.11	2.80
555U/3, 6 dB	9.12	231.6	1.38	35.1	1.12	28.5	.11	2.80
555V/10, 20, 30, 40	6.25	159.0	1.13	28.6	0.88	22.4	.08	2.03
555V/3, 6 dB	7.25	184.1	1.13	28.7	0.88	22.4	.08	2.03
555E/10, 20, 30, 40	5.50	140.0	1.13	28.5	0.88	22.4	.07	1.78
555E/3, 6 dB	6.62	168.1	1.13	28.7	0.88	22.4	.07	1.78
555W/10, 20, 30, 40	4.50	114.0	1.00	25.4	0.81	20.6	0.6	1.52
555W/3, 6 dB	5.50	139.7	1.00	25.4	0.81	20.6	.06	1.52

Technical Specifications (typical)						
Model No.	555A	555B	555U	555V	555E	555W
Frequency Band (GHz)	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)	± 0.7	± 0.7	± 0.8	± 1.0	± 1.0	± 1.0
Coupling Accuracy (dB)	± 1.0	± 1.0	± 1.2	± 1.5	± 1.5	± 1.5
Directivity (dB) Typical	30	30	30	30	30	30
Main Line VSWR	1.05	1.05	1.10	1.10	1.10	1.10
Auxiliary Line VSWR	1.15	1.15	1.20	1.20	1.20	1.20
Weight (oz)	6.0	5.0	4.0	3.0	2.5	2.0

### 556 up to J Band



### Ordering Information



### OTHER WAVEGUIDE BANDS AVAILABLE:

WR-90                      WR-51  
WR-75                      WR-34  
WR-62