

561 Series Broadband Directional Couplers

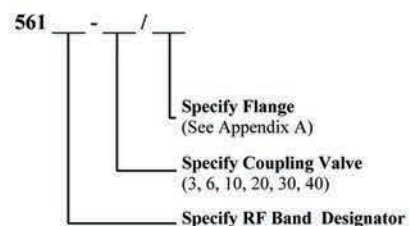
MI-WAVE
Millimeter Wave Products Inc.



Features

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

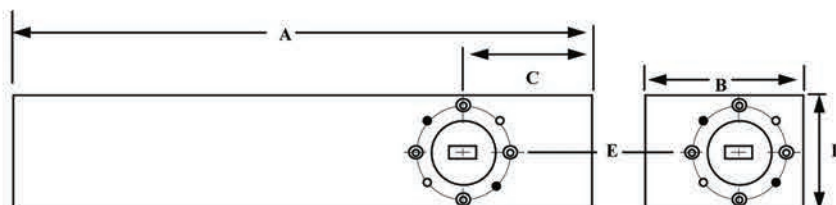
Ordering Information



Description

Mi-Wave's 561 series broadband directional couplers are broadwall multi-hole energy-coupling devices. The 561 series devices are available in various waveguide sizes ranging in frequency from 18.0 to 220 GHz.

Nominal couplings of 3, 6, 10, 20, 30, and 40 dB are offered to complement specific test set requirements.



Applications

The 561 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		E	
	in	mm	in	mm	in	mm	in	mm	in	mm
561A	6.21	157.7	0.93	23.6			0.69	17.5	0.65	16.5
561B	8.0	203.2	1.30	33.0	1.50	38.1	1.30	33.0	0.65	16.5
561U	7.0	177.8	1.30	33.0	1.30	33.0	1.30	33.0	0.65	16.5
561 V	6.0	152.4	1.30	33.0	1.25	31.8	1.00	25.4	0.50	12.7
561E	5.0	127.0	1.10	27.9	1.00	25.4	1.00	25.4	0.50	12.7
561W	4.0	101.6	1.10	27.9	0.80	20.32	1.00	25.4	0.50	12.7
561F	2.88	73.15	1.10	27.9	0.80	20.32	1.00	25.4	0.50	12.7
561D	2.88	73.15	1.10	27.9	0.80	20.32	1.00	25.4	0.50	12.7
561 G	2.88	73.15	1.10	27.9	0.80	20.32	1.00	25.4	0.50	12.7

Technical Specifications (typical)

Model Number	561 A	561 B	561U	561V	561E	561W	561F	561D	561G
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	90.0-140.0	110.0-170.0	140.0-220.0
Coupling (dB)	3, 6, 10, 20, 30, 40								
Coupling Variation (dB)	± .06	± .06	± .08	± 1.0	± 1.0	± 1.0	± 1.5	± 1.5	± 1.5
Coupling Accuracy (dB)	± 1.0	± 1.0	± 1.0	± 1.5	± 1.5	± 1.5	± 2.0	± 2.0	± 2.0
Directivity (dB) Typical	35	35	35	35	35	35	25	25	25
Main Line VSWR	1.05	1.05	1.05	1.10	1.10	1.10	1.15	1.15	1.15
Auxiliary Line VSWR	1.12	1.12	1.12	1.15	1.15	1.17	1.20	1.20	1.20