



General Purpose Waveguide Directional Couplers

QDC

Characteristics

- ◆ Broadband
- ◆ Low VSWR
- ◆ High Directivity
- ◆ Minimum Coupling Variation with Frequency



Product Description

QuinStar products QDC series broadband directional couplers are multi-hole waveguide couplers. The QDC series couplers are offered in 7 waveguide sizes from 18.0 to 110 GHz. Nominal coupling of 10 dB, 20 dB, 30 dB, and 40 dB are offered as standard products. Two different mechanical configurations or outlines are offered for these

waveguide couplers- one with E-plane bend and the other with H-plane bend in the coupled port to suit the physical layout of all applications or test set requirements.

QuinStar also offers Series QJG and QJR Precision Directional Couplers in rectangular block geometry.

Specifications

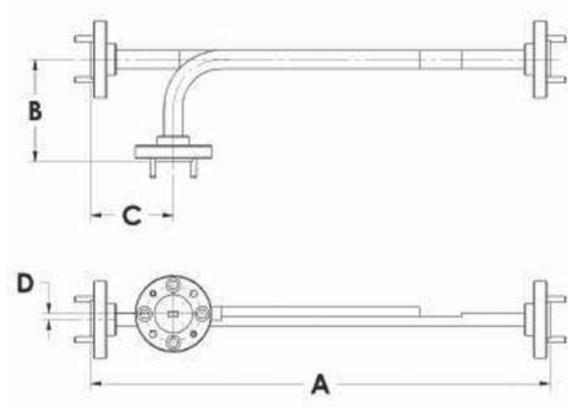
WAVEGUIDE BAND	K	Ka	Q	U	V	E	W
Frequency Range (GHz)	18.0-26.5	26.5-40.0	33.0-50.0	40.0-60.0	50.0-75.0	60.0-90.0	75.0-110.0
Coupling (dB)	10, 20, 30, 40						
Coupling Variation (dB)	+/- 0.6	+/- 0.6	+/- 0.6	+/- 0.8	+/- 1.0	+/- 1.0	+/- 1.0
Coupling Accuracy (dB)	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.2	+/- 1.5	+/- 1.5	+/- 1.5
Directivity (dB) Typical	35	35	35	35	35	35	30
Main Line VSWR (Typical)	1.05	1.05	1.05	1.10	1.10	1.10	1.10
Coupled Line VSWR (Typical)	1.12	1.12	1.12	1.15	1.15	1.15	1.17



General Purpose Waveguide Directional Couplers

QDC

Outline Drawings/Mechanical Specifications



FREQUENCY BAND AND COUPLING LEVEL (dB)	OUTLINE DIMENSIONS, inches/mm			
	A	B	C	D
K 10, 20, 30, 40	11.50/292.0	2.00/50.8	1.50/38.1	.25/6.35
Ka 10, 20, 30, 40	9.62/244.0	1.75/44.5	1.38/35.1	.16/4.06
Q 10, 20, 30, 40	8.40/213.0	1.64/41.7	1.30/33.0	.13/3.30
U 10, 20, 30, 40	7.38/187.4	1.38/35.1	1.12/28.5	.11/2.80
V 10, 20, 30, 40	6.25/159.0	1.13/28.7	0.88/22.4	.08/2.03
E 10, 20, 30, 40	5.50/140.0	1.13/28.7	0.88/22.4	.07/1.78
W 10, 20, 30, 40	4.50/114.0	1.00/25.4	0.81/20.6	.06/1.52

Ordering Information

