

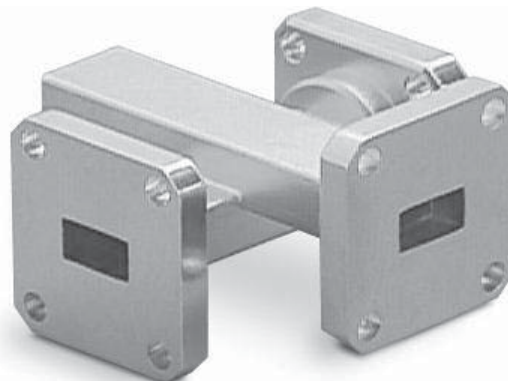


General Purpose Crossguide Couplers

QJX

Characteristics

- ◆ Compact Size
- ◆ Low Insertion Loss
- ◆ Low Cost/Moderate Performance



Product Description

QuinStar Technology's **QJX** series of compact **general purpose** 3-port **crossguide directional couplers** cover the frequency range of 18 to 60 GHz in four waveguide bands with midband nominal coupling values of 20 and 30 dB. These crossguide couplers are ideal devices for sampling or inserting RF energy in a waveguide transmission line

without affecting the transmitting signal. Typical applications include frequency monitoring, power sampling and built-in testing. The crossguide type of directional coupler has the advantage of lower insertion loss, smaller size and lower cost when compared to broadwall directional couplers.

Specifications

FREQUENCY BAND	K	Ka	Q	U
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60
Waveguide Size	WR-42	WR-28	WR-22	WR-19
Coupling Values, (dB at center frequency)	20 and 30 ± 2 dB			
Bandwidth (min)	20% of waveguide band			
Insertion Loss (dB max) ¹	0.5	0.5	0.6	0.7
Directivity (dB typ) ²	15			
Main Line VSWR (max)	1.15:1			
Secondary Line VSWR (max)	1.2:1			
Coupling Flatness (dB max)	± 1.5			

¹ Insertion loss is defined as the power loss in excess of the loss due to coupling.

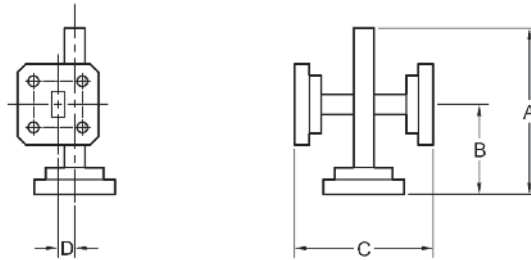
² Directivity is the difference between power levels at the coupled port when input and output ports are interchanged.



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Outline Drawing/Mechanical Specifications



FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	OUTLINE DIMENSIONS, inches/mm		
			A, C	B	D
K	WR-42	UG-595/U	2.00/50.8	1.00/25.4	0.19/4.7
Ka	WR-28	UG-599/U	1.50/38.1	0.75/19.1	0.16/4.1
Q	WR-22	UG-383/U	1.50/38.1	0.75/19.1	0.13/3.2
U	WR-19	UG-383/U	1.50/38.1	0.75/19.1	0.11/2.8

Ordering Information

