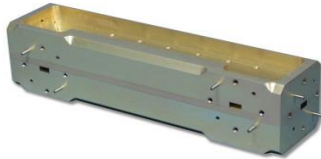




QJB Series

Precision Bi-Directional Couplers



SPECIFICATIONS

FREQUENCY BAND	K	Ka	Q	U	V	E	W	F	D	G
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110	90-140	110-170	140-220
Waveguide Size*	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8	WR-6	WR-5
Coupling Values** (dB at center frequency)	10, 20, 30, 40 (± 1)									
Coupling Flatness ($\pm$ dB MAX)	± 0.7	± 0.7	± 0.7	± 0.7	± 0.7	± 0.8	± 0.8	± 1.0	± 1.0	± 1.2
Directivity (dB typ) _{1,3}	35	35	35	35	30	30	30	28	28	25
Insertion Loss (dB MAX) ²	1	1	1	1	1.2	1.3	1.5	2	2.5	3
VSWR, Main Line (typ)	1.10:1	1.10:1	1.10:1	1.10:1	1.10:1	1.10:1	1.10:1	1.15:1	1.15:1	1.20:1
VSWR, Secondary Line (typ)	1.10:1	1.10:1	1.10:1	1.10:1	1.10:1	1.15:1	1.15:1	1.20:1	1.21:1	1.25:1

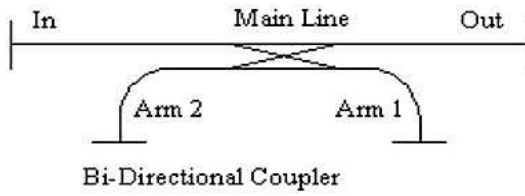
* Other waveguide sizes are available.

** Custom coupling values are available.

¹ Directivity is the difference between power levels at the coupled port when input and output ports are interchanged.

² Insertion loss is defined as the power loss in excess of the loss due to coupling.

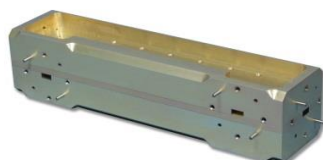
³ For 30 dB and 40 dB couplers: directivity = 25 dB typ.





QJB Series

Precision Bi-Directional Couplers



MECHANICAL SPECIFICATIONS/OUTLINE DRAWINGS

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	DIMENSIONS (INCHES/MM)				
			A	B	C	D	E
K	WR-42	UG-595/U	1.40/35.6	1.06/26.9	9.25/234.9	4.05/102.9	0.60/15.2
Ka	WR-28	UG-599/U	1.10/27.9	0.90/22.9	6.21/157.7	4.83/122.7	0.43/10.9
Q	WR-22	UG-383/U	1.36/34.5	1.25/31.8	5.50/139.7	3.90/99.1	0.562/14.2
U	WR-19	UG-383/U-M	1.36/34.5	1.23/31.2	5.50/139.7	3.90/99.1	0.56/14.2
V	WR-15	UG-385/U	1.10/27.9	0.83/21.1	4.00/101.6	2.80/71.1	0.5/12.7
E	WR-12	UG-387/U	1.10/27.9	0.82/20.7	3.50/88.9	2.30/58.4	0.5/12.7
W	WR-10	UG-387/U-M	1.10/27.9	0.81/20.4	3.25/82.5	2.05/52.1	0.5/12.7
F	WR-8	UG-387/U-M	1.20/30.5	0.80/20.3	2.42/61.5	1.22/31.0	0.38/9.7
D	WR-6	UG-387/U-M	1.20/30.5	0.80/20.3	2.42/61.5	1.22/31.0	0.38/9.7
G	WR-5	UG-383/U-M	1.20/30.5	0.80/20.3	2.42/61.5	1.22/31.0	0.38/9.7

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	DIMENSIONS (INCHES/MM)	
			F	G
K	WR-42	UG-595/U	0.18/4.6	0.44/11.2
Ka	WR-28	UG-599/U	0.15/3.8	0.375/9.5
Q	WR-22	UG-383/U	0.122/3.1	0.563/14.3
U	WR-19	UG-383/U-M	0.198/5.0	0.578/14.7
V	WR-15	UG-385/U	0.079/2.0	0.375/9.5
E	WR-12	UG-387/U	0.066/1.7	0.375/9.5
W	WR-10	UG-387/U-M	0.055/1.4	0.378/9.6



F	WR-8	UG-387/U-M	0.085/2.2	0.385/9.8
D	WR-6	UG-387/U-M	0.070/1.8	0.389/9.9
G	WR-5	UG-383/U-M	0.056/1.4	0.392/10.0

