



QJR Series

Precision High Directivity Couplers



SPECIFICATIONS

FREQUENCY BAND	K	Ka	Q	U	V	E	W	F	D
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110	90-140	110-170
Waveguide Size*	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8	WR-6
Coupling Values** (dB at center frequency)	3, 6, 10, 20, 30 and 40 (± 1)								
Coupling Flatness (\pm dB MAX)	0.7	0.7	0.7	0.7	0.7	0.8	0.8	1	1
Directivity (dB typ) _{1,3}	37	37	37	37	35	35	35	30	28
Insertion Loss (dB MAX) ²	0.7	0.7	0.7	0.7	0.8	1	1.2	2	2.5
VSWR, Main Line (typ)	1.1:1	1.1:1	1.1:1	1.1:1	1.1:1	1.1:1	1.1:1	1.15:1	1.15:1
VSWR, Secondary Line (typ)	1.1:1	1.1:1	1.1:1	1.1:1	1.1:1	1.15:1	1.15:1	1.2:1	1.22:1

* 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.



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MECHANICAL SPECIFICATIONS/OUTLINE DRAWINGS

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	OUTLINE DIMENSIONS, inches/mm			
			A	B	C	D
K	WR-42	UG-595/U	1.40/35.6	1.06/26.9	9.25/234.9	0.60/15.2
Ka	WR-28	UG-599/U	1.10/27.9	0.90/22.8	6.25/158.7	0.60/15.2
Q	WR-22	UG-383/U	1.36/34.5	1.25/31.7	5.50/139.7	0.80/20.3
U	WR-19	UG-383/U	1.25/31.7	1.25/31.7	5.50/139.7	0.83/21.1
V	WR-15	UG-385/U	1.10/27.9	0.83/21.0	4.0/101.6	0.60/15.2
E	WR-12	UG-387/U	1.10/27.9	0.82/20.8	3.5/88.9	0.60/15.2
W	WR-10	UG-387/U	1.10/27.9	0.81/20.6	3.25/82.6	0.63/16.0
F	WR-8	UG-387/U	1.10/27.9	0.80/20.3	3.0/76.2	0.60/15.2
D	WR-6	UG-387/U	1.10/27.9	0.80/20.3	3.0/76.2	0.60/15.2

