

Short Length, High Directivity Couplers

Used in applications requiring short insertion length with high directivity



Single Output



Dual Output

GENERAL SPECIFICATIONS

- Std. coupling values: 30, 40, 50dB, Single or Dual Output
- Other coupling values available, but length of unit may change.
- Coupling Accuracy: +/- 0.5dB
- Frequency Sensitivity: +/- 0.5dB
- Directivity: 25dB min, 30dB typical

WG Size	Freq (GHz)	Standard Model No.*	Length (inches)
WR430	1.70 - 2.60	430-339A-dB-2-2	48.0
WR430	1.82 - 2.18	430-331A-dB-2-2	26.0
WR340	2.20 - 3.30	340-339A-dB-2-2	36.0
WR340	2.78 - 3.22	340-331A-dB-2-2	19.0
WR284	2.60 - 3.95	284-339A-dB-6-6	25.0
WR284	2.90 - 3.10	284-331A-dB-6-6	16.0
WR229	3.30 - 4.90	229-339A-dB-2-2	21.0
WR229	3.60 - 4.30	229-331A-dB-2-2	14.0
WR187	3.95 - 5.85	187-339A-dB-6-6	17.3
WR187	4.00 - 4.50	187-331A-dB-6-6	12.0
See website for entire List of Models			
WR62	12.4 - 18.0	62-339A-dB-6-6	8.1
WR62	15.0 - 18.0	62-331A-dB-6-6	3.0
WR51	15.0 - 22.0	51-337A-dB-6-6	3.0
WR51	18.2 - 21.0	51-331A-dB-6-6	3.0
WR42	17.7 - 21.0	42-331A-dB-6-6	3.0
WR42	18.0 - 26.5	42-337A-dB-6-6	3.0
WR34	22.0 - 33.0	34-337A-dB-6-6	3.0
WR34	27.8 - 32.2	34-331A-dB-6-6	2.75
WR28	26.5 - 40.0	28-337A-dB-6-6	3.0
WR28	27.3 - 32.7	28-331A-dB-6-6	2.5

Available in single or dual configuration

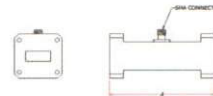
Rectangular Waveguide Power Samplers, SMA Female

Used to sample RF Power from the main line in a rectangular waveguide system.

TYPICAL SPECIFICATIONS

Electrical

- Full waveguide frequency range.
- Coupling: 30, 40, 50 dB standard, others available upon request.
- VSWR Primary: 1.05 max (1.08 max for 30dB coupling level) SMA arm: N/A
- Nominal Coupling: +/- 1.00dB
- Frequency Sensitivity: +/- 1.50dB max.

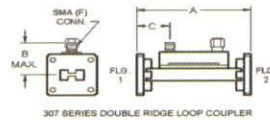
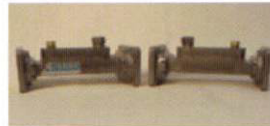


WG Size	Freq (GHz)	Standard Model No.*	Dim A (Inches)	Peak Power (Kw)	Average Power (W)
WR430	1.70 - 2.60	430-350A-dB-2-2	6.00	5000	4500
WR340	2.20 - 3.30	340-350A-dB-2-2	6.00	3700	3500
WR284	2.60 - 3.95	284-350A-dB-6-6	4.00	2200	2000
WR229	3.30 - 4.90	229-350B-dB-2-2	3.00	1300	1200
WR187	3.95 - 5.85	187-350A-dB-6-6	3.00	880	900
WR159	4.90 - 7.05	159-350B-dB-2-2	3.00	740	700
WR137	5.85 - 8.20	137-350B-dB-2-2	3.00	520	500
WR112	7.05 - 10.0	112-350B-dB-6-6	2.00	334	300
WR102	7.00 - 11.0	102-350B-dB-6-6	2.00	262	250
WR90	8.20 - 12.4	90-350A-dB-6-6	2.00	190	220
WR75	10.0 - 15.0	75-350B-dB-6-6	2.00	156	200
WR62	12.4 - 18.0	62-350B-dB-6-6	2.00	112	150
WR51	15.0 - 22.0	51-350B-dB-6-6	2.00	72	120
WR42	18.0 - 26.5	42-350B-dB-6-6	1.75	40	70
WR34	22.0 - 33.0	34-350B-dB-6-6**	1.75	32	70
WR28	26.5 - 40.0	28-350A-dB-6-6**	1.75	21	40

Double Ridge Models

WRD200	2.00 - 4.80	200-350-dB-C1-C1	2.50	30	2800
WRD250	2.60 - 7.80	250-350-dB-C1-C1	2.50	27	2350
WRD350	3.50 - 8.20	350-350-dB-C1-C1	2.30	26	2250
WRD475	4.80 - 11.0	475-350-dB-C1-C1	2.00	28	1800
WRD580	5.80 - 16.0	580-350-dB-C1-C1	2.00	22	900
WRD650	6.50 - 18.0	650-350-dB-C1-C1	2.00	10	480
WRD750	7.50 - 18.0	750-350-dB-C1-C1	2.00	7	330
WRD180	18.0 - 40.0	180-350-dB-C1-C1**	1.50	8	420

Double Ridge Waveguide Loop Coupler - SMA (F)



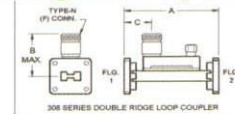
GENERAL SPECIFICATIONS

Electrical

- VSWR:
 - Primary: 1.07 Max
 - Coax: 1.35 Max (SMA F) 1.50 Max (TypeN F)
- Coupling: 30, 40, 50, or 60dB std., others available upon request.
- Nominal Coupling: +/- 1.00 dB
- Frequency Sensitivity: +/- 1.00dB max.
- Directivity: 15dB min., 20dB typ.
- RF Connectors: SMA-F, Type-N-F (Standard)
- Full waveguide frequency range
- Units pressure tested to 30 psi
- Ideal for High Power Sensing
- Single Arm standard, Multi-arm available

WG Size	Freq (GHz)	Basic Model No.*	Dim A (Inches)	Dim B (Inches)	Dim C (Inches)
WRD750	7.50 - 18.0	750-307-dB-C3-C3	2.5	0.9	0.63
WRD650	6.50 - 18.0	650-307-dB-C3-C3	2.5	0.9	0.63
WRD580	5.85 - 14.5	580-307-dB-C3-C3	3.0	1.0	0.88
WRD475	4.75 - 11.0	475-307-dB-C3-C3	3.5	1.1	1.13

Double Ridge Waveguide Loop Coupler - Type N (F)



WG Size	Freq (GHz)	Basic Model No.*	Dim A (Inches)	Dim B (Inches)	Dim C (Inches)
WRD750	7.50 - 18.0	750-308-dB-C3-C3	2.5	0.8	0.63
WRD650	6.50 - 18.0	650-308-dB-C3-C3	2.5	0.8	0.63
WRD580	5.85 - 14.5	580-308-dB-C3-C3	3.0	0.8	0.88
WRD475	4.75 - 11.0	475-308-dB-C3-C3	3.5	0.8	1.13

Rectangular W/G Pressure Windows

- Standard Applications - 230 series Teflon-Fiberglass window
- Vacuum Applications - 233 Kapton window



WG Size	Freq. (GHz)	Power (Watts)-CW	Power (kW)-Peak	Pressure (PSIG)	Standard Model No. Material:	VSWR
Teflon fiberglass						
WR340	2.20 - 3.30	1800	3500	15	340-230-6-6	1.06
WR284	2.60 - 3.95	1300	2000	15	284-230-6-6	1.06
WR229	3.30 - 4.90	1300	1800	20	229-230-2-2	1.07
WR187	3.95 - 5.85	1300	1500	25	187-230-6-6	1.06
WR159	4.90 - 7.05	1200	1000	30	159-230-2-2	1.05
WR137	5.85 - 8.20	1000	750	35	137-230-2-2	1.07
WR112	7.05 - 10.0	1000	500	40	112-230-6-6	1.1
WR102	7.0 - 11.0	1000	400	40	102-230-6-6	1.15
WR90	8.20 - 12.4	900	300	40	90-230-6-6	1.1
WR75	10.0 - 15.0	800	200	40	75-230-6-6	1.09
WR62	12.4 - 18.0	700	150	40	62-230-6-6	1.08
WR51	15.0 - 22.0	500	100	40	51-230-6-6	1.12
WR42	18.0 - 26.5	400	75	40	42-230-6-6	1.12
WR34	22.0 - 33.0	400	60	40	34-230-6-6	1.15
WR28	26.5 - 40.0	250	45	40	28-230-6-6	1.18

Rectangular W/G Vacuum Pressure Windows (material KAPTON)

WR284	2.60 - 3.95	1300	N/A	15	284-233-6-6	1.06
WR229	3.30 - 4.90	1200	N/A	15	229-233-2-2	1.07
WR187	3.95 - 5.85	1200	N/A	15	187-233-6-6	1.06
WR159	4.90 - 7.05	700	N/A	15	159-233-2-2	1.05
WR137	5.85 - 8.20	500	N/A	15	137-233-2-2	1.07
WR112	7.05 - 10.0	400	N/A	15	112-233-6-6	1.10
WR102	7.0 - 11.0	400	N/A	15	102-233-6-6	1.15
WR90	8.20 - 12.4	400	N/A	15	90-233-6-6	1.10
WR75	10.0 - 15.0	375	N/A	15	75-233-6-6	1.09
WR62	12.4 - 18.0	375	N/A	15	62-233-6-6	1.08
WR51	15.0 - 22.0	350	N/A	15	51-233-6-6	1.12
WR42	18.0 - 26.5	320	N/A	15	42-233-6-6	1.12
WR34	22.0 - 33.0	250	N/A	15	34-233-6-6	1.15
WR28	26.5 - 40.0	100	N/A	15	28-233-6-6	1.18

Double Ridge W/G Pressure Windows

WG Size	Freq. (GHz)	VSWR	RF Power Avg. CW (Watts)	Peak (kW)	Pressure (PSIG)	Material	Standard Model No.
WRD200	2.00 - 4.80	1.09	600	1	15	Kapton	200-233-C3-C3
WRD250	2.50 - 7.80	1.09	600	1	15	Kapton	250-233-C3-C3
WRD350	3.50 - 8.20	1.09	600	1	15	Kapton	350-233-C3-C3
WRD475	4.75 - 11.0	1.09	600	1	15	Kapton	475-233-C3-C3
WRD650	6.50 - 18.2	1.09	600	1	15	Kapton	650-233-C3-C3
WRD750	7.50 - 18.0	1.09	600	1	15	Kapton	750-233-C3-C3
WRD750	7.50 - 18.0	1.09	600	1	15	Teflon/glass	750-230-C3-C3