

RECTANGULAR WAVEGUIDE SPECIFICATIONS

EIA WG Designation	Recommended Operating Range for TE _{1,0} Mode		Cut-Off for TE _{1,0} Mode		Range In $\frac{2\lambda}{\lambda}$	Range In $\frac{\lambda}{\lambda}$	Recommended Power Rating (At One Atmosphere)		Theoretical Attenuation lowest to highest frequency (dB/100 ft.)	DIMENSIONS (Inches)				Wall Thickness Nominal
	Frequency (GHz-Sec)	Wavelength (cm)	Frequency (GHz-Sec)	Wavelength (cm)			cw(KW)	peak(KW)		Inside	Tol. ±	Outside	Tol. ±	
WR137	5.85-8.20	5.12-3.66	4.285	6.996	1.47-1.05	1.48-1.17	10.0 8.0	1980	1.987-1.562 2.955-2.348	1.372 x .622	.004	1.500 x .750	.004	.064
WR102	7.00-11.00	4.28-2.72	5.786	5.182	1.65-1.05	1.78-1.18	5.0 4.0	1020	3.516-2.217 5.285-3.333	1.020 x .510	.005	1.148 x .638	.005	.064
WR112	7.05-10.00	4.25-2.99	5.260	5.700	1.49-1.05	1.51-1.17	6.0 4.8	1280	2.776-2.154 4.173-3.238	1.122 x .497	.004	1.250 x .625	.004	.064
WR90 R/H	8.20-12.40	3.66-2.42	6.560	4.572	1.60-1.06	1.68-1.18	2.0	340	10.47-9.254	.900 x .200	.003	1.000 x .300	.003	.050
WR90	8.20-12.40	3.66-2.42	6.560	4.572	1.60-1.06	1.68-1.18	3.0 2.4	760	4.238-2.995 6.506-4.502	.900 x .400	.003	1.000 x .500	.003	.050
WR75 R/H	10.00-15.00	2.99-2.00	7.847	3.820	1.57-1.05	1.64-1.17	1.8	280	7.806-5.950	.750 x .200	.003	.850 x .300	.003	.050
WR75	10.00-15.00	2.99-2.00	7.847	3.820	1.57-1.05	1.64-1.17	2.8 2.2	620	5.121-3.577 7.698-5.377	.750 x .375	.003	.850 x .475	.003	.050
WR62	12.40-18.00	2.42-1.66	9.490	3.160	1.53-1.05	1.55-1.18	1.8 1.4	460	6.451-4.743 9.700-7.131	.622 x .311	.002	.702 x .391	.003	.040
WR28	26.50-40.00	1.13-.75	21.10	1.422	1.59-1.05	1.65-1.17	0.5 0.4	100	23.02-15.77 34.46-23.59	.280 x .140	.001	.360 x .220	.002	.040

Courtesy of Continental Microwave & Tool Company, Inc.

DOUBLE RIDGE WAVEGUIDE SPECIFICATIONS

Waveguide Size	MIL-W-23351 Dash No.	Material	Recommended Frequency Range TE _{1,0} Mode (GHz)	(3) Cut-Off Frequency for TE _{1,0} Mode (GHz)	(1) $F = \sqrt{3}Fc_{1,0}$ Theoretical Attenuation Decibels/Foot	(2) Recommended Power Rating (At One Atmosphere)		DIMENSIONS (Inches)							
						cw(KW)	peak(KW)	A	B	C	D	E	F	R1	R2
WRD 475D24	4-033 4-034 4-035 4-036	Aluminum Alloy Brass Copper Silver Alloy	4.75 - 11.0	3.961	0.0487 0.0481 0.0324 0.0347	8.0	85	1.090	.506	1.190	.606	.272	.215	.043	.030
WRD 580D28		Aluminum Alloy Brass Copper Silver Alloy	5.80 - 16.00	4.892	0.100 0.098 0.067 0.070	5.2	32	.780	.370	.880	.470	.200	.120	.043	.015
WRD 650D28		Aluminum Alloy Brass Copper Silver Alloy	6.50 - 18.00	5.348	0.106 0.105 0.070 0.076	4.0	25	.721	.321	.821	.421	.173	.101	.022	.020
WRD 750D24	4-037 4-038 4-039 4-040	Aluminum Alloy Brass Copper Silver Alloy	7.50 - 18.00	6.239	0.0964 0.0951 0.0641 0.0686	4.8	35	.691	.321	.791	.421	.173	.136	.027	.020
WRD 180C24	4-045 4-046 4-047 4-048	Aluminum Alloy Brass Copper Silver Alloy	18.00 - 40.00	14.995	0.358 0.353 0.238 0.255	0.8	5	.288	.134	.368	.214	.072	.057	.011	.015

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Waveguide Size	MIL-W-23351 Dash No.	Material	Recommended Frequency Range TE _{1,0} Mode (GHz)	(3) Cut-Off Frequency for TE _{1,0} Mode (GHz)	(1) $F = \sqrt{3}Fc_{1,0}$ Theoretical Attenuation Decibels/Foot	(2) Recommended Power Rating (At One Atmosphere)		DIMENSIONS (Inches)							
						cw(KW)	peak(KW)	A	B	C	D	E	F	R1	R2
WRD 584		Aluminum	5.80 - 18.40	4.467	0.188	4	30	.720	.310	.925	.510	.180	.064	.043	.015

Courtesy of (MDC) Microwave Development Co.