

Rectangular Waveguides										
			Recommended Operating Range for TE ₁₀ Mode		Cut-off for TE ₁₀ Mode					
Mi-Wave Band	Waveguide Designator (WR)	Waveguide Inner Dimensions in Inches	Frequency (GHz)	Wave-length (mm)	Frequency (GHz)	Wave-length (mm)	Theoretical Power CW Breakdown Lowest to Highest Frequency (KW)	Theoretical At-tenuation Lowest to Highest Frequency (dB/ff)	Flange Type	Historic Designation
Ku	WR-62	0.622 x 0.311	12.4–18.0	24.2–16.6	9.486	31.60	400–600	.064–.030	Cover ¹ Choke	UG-419/U Flange UG-541/U Flange
K	WR-42	0.420 x 0.170	18.0–26.5	16.6–11.3	14.047	21.34	160–240	.17–.11	Cover ¹ Choke Cover	UG-595/U Flange UG-596A/U Flange UG-425/U Flange
A	WR-28	0.280 x 0.140	26.5–40.0	11.3–7.5	21.081	14.22	95–145	0.22–0.15	Cover ¹ Choke Cover	UG-599/U Flange UG-600/U Flange UG-381/U Flange
B	WR-22	0.224 X 0.112	33.0–50.0	9.1–6.0	26.342	11.38	62–90	0.31–0.21	Cover ¹ Cover Cover	UG-383/U Flange 719 719T
U	WR-19	0.188 x 0.094	40.0–60.0	7.5–5.0	31.357	9.56	47–64	0.39–0.27	Cover ¹² Cover Cover	UG-385/U Flange-M 710 720T
V	WR-15	0.148 x 0.074	50.0–75.0	6.0–4.0	39.863	7.52	29–42	0.78–0.53	Cover ¹	UG-385/U Flange
E	WR-12	0.122 x 0.061	60.0–90.0	5.0–3.3	48.350	6.20	20–29	0.78–0.53	Cover ¹	UG-387/U Flange
W	WR-10	0.100 x 0.050	75.0–110	4.0–2.7	59.010	5.08	14–20	1.02–0.71	Cover ¹²	UG-387/U Flange-M
F	WR-8	0.080 x 0.040	90.0–140.0	3.3–2.1	73.764	4.06	8.5–13.5	1.52–0.98	Pin ¹ Cover ²	714 UG-387/U Flange-M
D	WR-7	0.065 x 0.0325	110.0–170.0	2.7–1.8	90.786	3.30	5.8–9.0	2.12–1.35	Pin ¹ Cover ²	716 UG-387/U Flange-M
G	WR-5	0.051 x 0.0255	140.0–220.0	2.1–1.4	115.71	2.59	3.7–6.1	3.05–1.93	Pin ¹ Cover ²	715 UG-387/U Flange-M
H	WR-4	0.043 x 0.021	170.0 - 260.0	1.7-1.2	137.3	2.18				UG-387/U Flange-M
J	WR-3	0.864 x 0.034	220.0 - 330.0	1.4-0.9	173.5	1.73				UG-387/U Flange-M
WR-2.2	WR-2.2	0.022 x 0.011	330.0 - 500.0	0.9-0.6	263.0	1.14				UG-387/U Flange-M

1. Standard flange unless otherwise specified.

2. Modified (-M) means waveguide opening has been reduced appropriately. Screw and pin pattern are unchanged.