

Appendix A: Circular Waveguide Sizes

Frequency Band	Frequency Range (GHz)*		Default Circular WG Diameter (in/mm)	Flange Type
X	Large	8.2 - 9.97	1.094 / 27.79	UG-39/U, Square
	Medium	8.5 - 11.6	0.938 / 23.83	
	Small	9.97 - 12.4	0.797 / 20.24	
Ku	Large	12.4 - 15.9	0.688 / 17.48	UG-419/U, Square
	Medium	13.4 - 18.0	0.594 / 15.08	
	Small	15.9 - 18.0	0.500 / 12.70	
K	Large	17.5 - 20.0	0.455 / 11.56	**
	Medium	20.0 - 24.5	0.396 / 10.06	UG-595/U, Square
	Small	24.0 - 26.5	0.328 / 8.33	UG-425/U, Round
Ka	Large	26.5 - 33.0	0.315 / 8.00	**
	Medium	33.0 - 38.5	0.250 / 6.35	UG-599/U, Square
	Small	38.5 - 40.0	0.219 / 5.56	UG-381/U, Round
Q	Large	33.0 - 38.5	0.250 / 6.35	UG-383/U, Round
	Medium	38.5 - 43.0	0.219 / 5.56	
	Small	43.0 - 50.0	0.188 / 4.78	
U	Large	40.0 - 43.0	0.210 / 5.33	UG-383/U, Round
	Medium	43.0 - 50.0	0.188 / 4.78	
	Small	50.0 - 60.0	0.165 / 4.19	
V	Large	50.0 - 58.0	0.165 / 4.19	UG-385/U, Round
	Medium	58.0 - 68.0	0.141 / 3.58	
	Small	68.0 - 75.0	0.125 / 3.18	
E	Large	60.0 - 66.0	0.136 / 3.45	UG-387/UM, Round
	Medium	66.0 - 82.0	0.125 / 3.18	
	Small	82.0 - 90.0	0.094 / 2.39	
W	Large	75.0 - 88.0	0.112 / 2.84	UG-387/UM, Round
	Small	88.0 - 110.0	0.094 / 2.39	
F	Large	90.0 - 115.0	0.089 / 2.26	UG-387/UM, Round
	Small	88.0 - 110.0	0.075 / 1.91	
D	Large	110.0 - 140.0	0.073 / 1.85	UG-387/UM, Round
	Small	140.0 - 160.0	0.059 / 1.50	
G	Large	140.0 - 180.0	0.058 / 1.47	UG-387/UM, Round
	Small	180.0 - 220.0	0.045 / 1.14	

- ◆ If the operating frequencies fall within two waveguide diameter sizes, the larger one should be selected.
- ◆ Our default flange type is round for K and Ka
 Note: Raytech Inc. reserves the right to change the information presented without notice.