



**ENGINEERING SPECIALTIES SERVICE**

680 North Bedford Street, 2nd Floor  
 East Bridgewater, MA. 02333  
 Tel: 508-378-1112  
 Fax: 508-378-2410

Your High Frequency Connection... [www.engineeringspecialties.net](http://www.engineeringspecialties.net)

## Waveguide Chart and Designations

USA WR- (size) (EIA)	Europe WG- (size) (RCSC)	START Frequency , (Ghz)	STOP Frequency (Ghz)	TE10 CUTOFF Frequency, (GHz.)	TE20 CUTOFF Frequency, (GHz.)	Inside Dimension "a"	Inside Dimension "b"	Inside Tol: (±)	Wall Thickness (in)
2300	00	.32	.49	0.256	0.51	23.000	11.500	0.02	.15
2100	0	.35	.53	0.28	0.56	21.000	10.500	.02	.125
1800	1	.41	.62	0.32	0.65	18.000	9.000	0.02	.125
1500	2	.490	.750	0.39	0.78	15.000	7.500	.015	0.125
1150	3	0.64	0.96	0.51	1.02	11.500	5.750	.015	.125
975	4	.750	1.12	0.60	1.21	9.750	4.875	.010	.125
770	5	.960	1.46	0.76	1.53	7.700	3.850	.010	.125
650	6	1.120	1.70	0.908	1.82	6.500	3.250	.010	.080
510	7	1.45	2.20	1.157	2.31	5.100	2.550	.010	.080
430	8	1.70	2.60	1.372	2.74	4.300	2.150	.008	.080
340	9A	2.20	3.30	1.736	3.47	3.400	1.700	.005	.080
284	10	2.60	3.95	2.078	4.15	2.840	1.340	.005	.080
229	11A	3.30	4.90	2.577	5.15	2.290	1.145	.005	.064
187	12	3.95	5.85	3.152	6.3	1.872	0.872	.005	.064
159	13	4.90	7.05	3.711	7.42	1.590	0.795	.004	.064
137	14	5.85	8.20	4.301	8.60	1.372	0.622	.004	.064
112	15	7.05	10.00	5.259	10.51	1.122	0.497	.004	.064
102		7.00	11.00	5.785	11.57	1.020	0.510	.003	.064
90	16	8.20	12.40	6.557	13.11	.900	.400	.003	.050
75	17	10.00	15.00	7.868	15.73	.750	.375	.003	.050
62	18	12.40	18.00	9.486	18.97	.622	.311	.002	.040
51	19	15.00	22.00	11.574	23.14	.510	.255	.002	.040
42	20	18.00	26.50	14.047	28.1	.420	.170	.002	.040
34	21	22.00	33.00	17.328	34.71	.340	.170	.002	.040
28	22	26.50	40.00	21.08	42.15	.280	.140	.002	.040
22	23	33.00	50.00	26.34	52.69	.224	.112	.001	.040
19	24	40.00	60.00	31.36	62.78	.188	.094	.001	.040
15	25	50.00	75.00	39.86	79.74	.148	.074	.001	.040
12	26	60.00	90.00	48.35	96.74	.122	.061	.0005	.040
10	27	75.00	110.00	59.01	118.0	.100	.050	.0005	.040
8	28	90.00	140.00	73.70	147.53	.0800	.0400	.0003	.020
7	29	110.00	170.00	90.90	181.5	.0650	.0325	.0002	.020
5	30	140.00	220.00	115.7	231.42	.0510	.0255	.0002	.020
4	31	170.00	260.00	137.2	274.48	.0430	.0215	0.0002	0.020

Tel: (508)-378-1112; Fax: (508)-378-2410

*MICROWAVE AND HIGH FREQUENCY DESIGN, TESTING, MODELING,  
 ANALYSIS, and CONSULTING SERVICES*