

Waveguide Horns

1.7-40 GHz

Standard Gain Horns

- 10, 15, 20 dB Versions
- Wideband Versions Available



Specifications

Standard Gain Horns, 1.7 to 40 GHz

FREQUENCY RANGE (GHz)	MODEL	WAVEGUIDE SIZE	FLANGE TYPE	FLANGE EQUIVALENT	GAIN (dB)	VSWR (max.)	WEIGHT (max.)	
							lb.	kg.
1.70 - 2.60	651-10	WR430	CPRF	UG-1711/U	10	1.25	2.30	1.04
2.60 - 3.95	652-10	WR284	Cover	UG-584/U	10	1.25	1.00	0.45
	652-15				15	1.18	2.80	1.27
3.30 - 4.90	653-10	WR229	CPRF	UG-1727/U	10	1.25	0.75	0.34
	653-15				15	1.18	2.80	1.27
3.95 - 5.85	654-10	WR187	Cover	UG-407/U	10	1.25	0.45	0.20
	654-15				15	1.18	1.00	0.45
	654-20				20	1.15	2.50	1.13
4.90 - 7.05	655-10	WR159	CPRF	UG-1731/U	10	1.25	1.20	0.54
	655-15				15	1.18	1.50	0.68
	655-20				20	1.15	2.40	1.09
5.85 - 8.20	656-10	WR137	Cover	UG-441/U	10	1.25	0.25	0.11
	656-15				15	1.18	0.45	0.20
	656-20				20	1.15	1.50	0.68
7.05 - 10.0	657-10	WR112	Cover	UG-138/U	10	1.25	0.15	0.07
	657-15				15	1.18	0.35	0.16
	657-20				20	1.15	0.75	0.34
7.00 - 11.0	658-10	WR102	Cover	MIL-F-3922/70-014	10	1.25	0.14	0.06
	658-15				15	1.18	0.28	0.13
	658-20				20	1.15	0.70	0.32
8.20 - 12.4	659-10	WR90	Cover	UG-135/U	10	1.25	0.18	0.08
	659-15				15	1.18	0.25	0.11
	659-20				20	1.15	0.75	0.34
10.0 - 15.0	660-10	WR75	Cover	MIL-F-3922/70-017	10	1.25	0.10	0.05
	660-15				15	1.18	0.19	0.09
	660-20				20	1.15	0.60	0.27
12.4 - 18.0	661-10	WR62	Cover	UG-1665/U	10	1.25	0.15	0.07
	661-15				15	1.18	0.25	0.11
	661-20				20	1.15	0.50	0.23

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FREQUENCY RANGE (GHz)	MODEL	WAVEGUIDE SIZE	FLANGE TYPE	FLANGE EQUIVALENT	GAIN (dB)	VSWR (max.)	WEIGHT (max.)	
							lb.	kg.
15.0 - 22.0	662-10	WR51	Cover	MIL-F-3922/70-024	10	1.25	0.06	0.03
	662-15				15	1.18	0.12	0.05
	662-20				20	1.15	0.35	0.16
18.0 - 26.5	663-10	WR42	Cover	UG-597/U	10	1.25	0.02	0.01
	663-15				15	1.18	0.04	0.02
	663-20				20	1.15	0.13	0.06
22.0 - 33.0	664-10	WR34	Cover	UG-1530/U	10	1.25	0.02	0.01
	664-15				15	1.18	0.03	0.01
	664-20				20	1.15	0.07	0.03
26.5 - 40.0	665-10	WR28	Cover	UG-599/U	10	1.25	0.01	0.01
	665-15				15	1.18	0.02	0.01
	665-20				20	1.15	0.04	0.02

Wideband Horns, Horns Only, 7.5 to 40 GHz

FREQUENCY RANGE (GHz)	MODEL	INPUT WAVEGUIDE SIZE	FLANGE TYPE	GAIN (dB) LOW TO HIGH FREQUENCY
7.50 - 18.0	667	WRD750	Square Cover	20.5-24.0
18.0 - 40.0	668	WRD180	Square Cover	14.0-19.0

Wideband Horns, 7.5 to 40 GHz, Horns with Adapter

FREQUENCY RANGE (GHz)	MODEL	COAXIAL CONNECTOR TYPE	FLANGE TYPE	GAIN (dB) LOW TO HIGH FREQUENCY
7.50 - 18.0	667A	N-Female	—	20.5-24.0
18.0 - 40.0	668A	2.92mm-Female	—	14.0-19.0

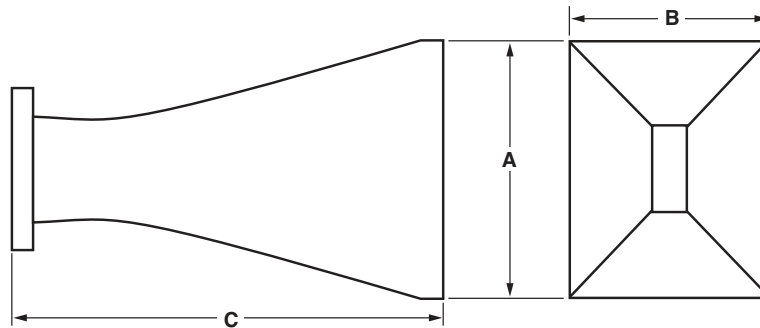
NOTE:

For a complete listing of all band letters and codes in use, refer to Band Designation Table on Page 183.



Waveguide Horns

Outline Drawings



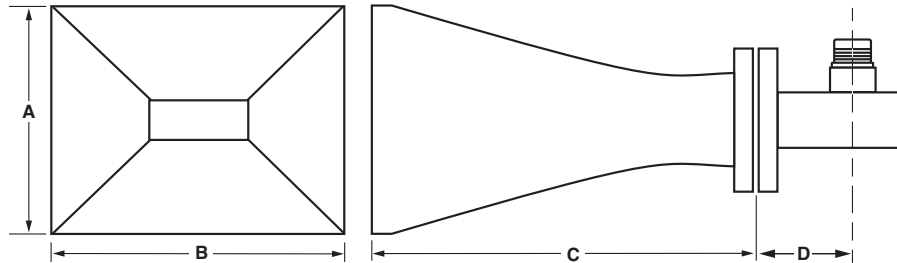
Standard Gain Horns

MODEL	DIMENSIONS (inches)		
	A	B	C
651-10	8.00	4.00	10.50
652-10	4.33	3.46	7.50
652-15	7.96	5.83	15.34
653-10	3.62	2.36	6.45
653-15	6.00	4.41	10.40
654-10	2.89	2.12	5.50
654-15	4.88	3.57	9.40
654-20	8.92	6.53	14.93
655-10	2.68	1.58	4.28
655-15	4.33	3.15	8.00
655-20	9.80	7.64	11.73
656-10	2.02	1.48	3.15
656-15	3.42	2.50	6.51
656-20	6.26	4.57	12.19
657-10	1.63	1.18	2.55
657-15	2.93	2.15	6.65
657-20	4.97	3.64	10.78
658-10	1.58	1.14	3.00
658-15	3.04	2.23	6.00
658-20	5.57	3.94	11.13

MODEL	DIMENSIONS (inches)		
	A	B	C
659-10	1.58	1.15	2.01
659-15	2.66	1.95	5.46
659-20	4.87	3.62	10.06
660-10	1.26	0.92	1.94
660-15	2.25	1.33	4.69
660-20	3.88	2.98	8.00
661-10	1.00	0.68	1.00
661-15	1.69	1.30	2.46
661-20	2.88	2.11	5.75
662-10	0.77	0.56	1.43
662-15	1.36	1.00	2.84
662-20	2.51	1.93	4.88
663-10	0.60	0.44	1.25
663-15	1.14	0.85	2.37
663-20	2.13	1.56	4.00
664-10	0.53	0.39	1.13
664-15	0.95	0.70	2.12
664-20	1.76	1.29	3.56
665-10	0.42	0.32	1.00
665-15	0.76	0.55	1.87
665-20	1.38	1.01	3.12

Dimensions in inches, unless otherwise specified.

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Wideband Horns

MODEL	DIMENSIONS (inches)			
	A	B	C	D
667	5.00	7.00	12.13	—
668	1.05	1.47	2.47	—
667A	5.00	7.00	12.13	1.42
668A	1.05	1.47	2.47	0.76

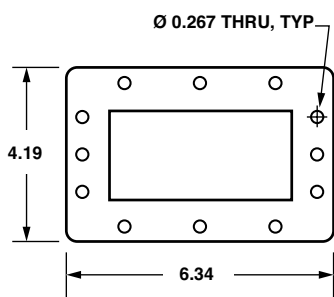
Dimensions in inches, unless otherwise specified.

Waveguide Band Designation Table and Reference Guide

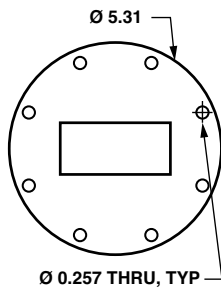
FREQUENCY RANGE (GHz)	WAVEGUIDE DESIGNATION			WAVEGUIDE TO COAXIAL ADAPTERS FOR STANDARD GAIN HORNS				
	EIA (WR)	IEC (R)	BRITISH (WG)	GAIN HORN SERIES	W/G TO COAX SMA / 2.92mm (F)	W/G TO COAX TYPE N (F)	W/G TO COAX END LAUNCH SMA / 2.92mm (F)	W/G TO COAX END LAUNCH TYPE N (F)
1.70 - 2.60	WR430	R22	WG8	651-Series	4617A	617	—	617E
2.60 - 3.95	WR284	R32	WG10	652-Series	4618	618	4618E	618E
3.30 - 4.90	WR229	R40	WG11A	653-Series	4619	619	4619E	619E
3.95 - 5.85	WR187	R48	WG12	654-Series	4620	620	4620E	620E
4.90 - 7.05	WR159	R58	WG13	655-Series	4621	621	4621E	621E
5.85 - 8.20	WR137	R70	WG14	656-Series	4622	622	4622E	622E
7.05 - 10.0	WR112	R84	WG15	657-Series	4623	623	4623E	623E
7.00 - 11.0	WR102	—	—	658-Series	4624	624	4624E	624E
8.20 - 12.4	WR90	R100	WG16	659-Series	4625	625	4625E	625E
10.0 - 15.0	WR75	R120	WG17	660-Series	4626	626	4626E	626E
12.4 - 18.0	WR62	R140	WG18	661-Series	4627	627	4627E	627E
15.0 - 22.0	WR51	R180	WG19	662-Series	4628	—	4628E	—
18.0 - 26.5	WR42	R220	WG20	663-Series	4629	—	4629E	—
22.0 - 33.0	WR34	R260	WG21	664-Series	4630	—	4630E	—
26.5 - 40.0	WR28	R320	WG22	665-Series	4631	—	4631E	—



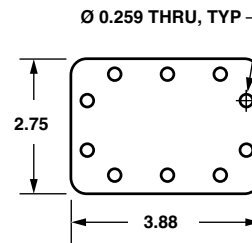
Waveguide Flange Data



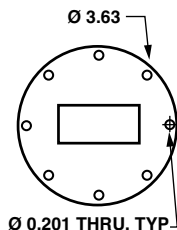
WR430
(UG-1711/U)



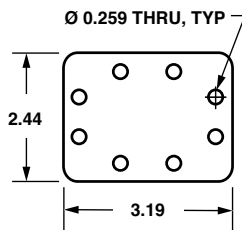
WR284
(UG-584/U)



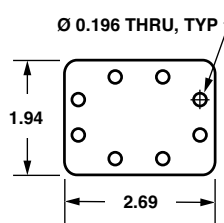
WR229
(UG-1727/U)



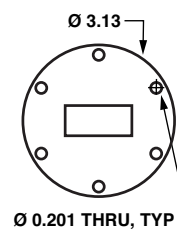
WR187
(UG-407/U)



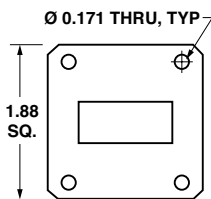
WR159
(UG-1731/U)



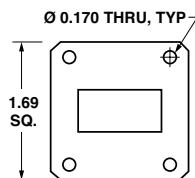
WR137
(UG-1733/U)



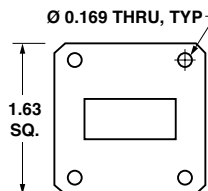
WR137
(UG-441/U)



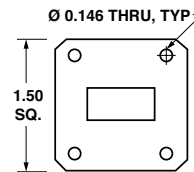
WR112
(UG-138/U)



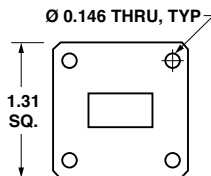
WR102
(MIL-F-3922/70-014)



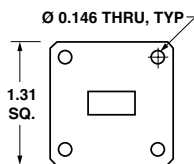
WR90
(UG-135/U)



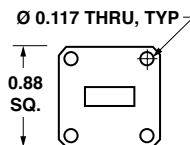
WR75
(MIL-F-3922/70-017)



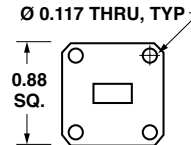
WR62
(UG-1665/U)



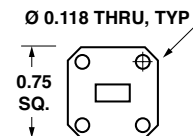
WR51
(MIL-F-3922/70-024)



WR42
(UG-597/U)



WR34
(UG-1530/U)



WR28
(UG-599/U)

For a complete listing of all band letters and codes in use, refer to Band Designation Table on page 183.

Dimensions in inches, unless otherwise specified.