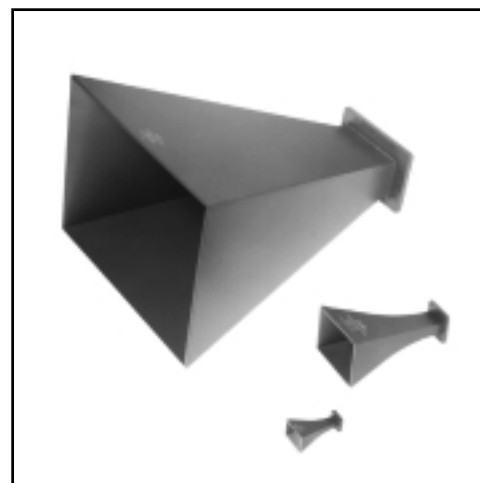


# Waveguide Horns

## 1.12-40 GHz

### STANDARD GAIN HORNS

- Primary Standard of Antenna Gain
- 10 Models Cover from 1.12 GHz to 40 GHz



### SPECIFICATIONS

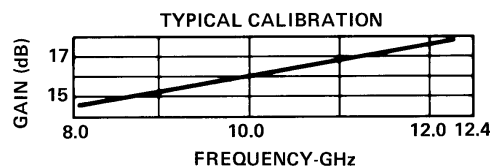
FREQUENCY RANGE (GHz)	MODEL	BAND*	WAVEGUIDE SIZE	INPUT COVER FLANGE EQUIVALENT	VSWR (Max)	WEIGHT lbs.	Kg
1.12-1.7	546	L	WR-650	UG-418A/U	1.25	42	19.1
1.70-2.6	545	LS	WR-430	UG-437A/U	1.25	11	5
2.60-3.95	544	S	WR-284	UG-584/U	1.15	6	2.8
3.95-5.85	543	C	WR-187	UG-407/U	1.15	2.3	1.1
5.4-8.20	542	XN	WR-137	UG-441/U	1.15	1.0	0.5
7.05-10	541	XB	WR-112	UG-138/U	1.15	0.5	0.23
8.20-12.4	540	X	WR-90	UG-135/U	1.15	0.5	0.23
12.4-18	539	KU	WR-62	UG-419/U	1.15	0.2	0.1
18-26.5	538	K	WR-42	UG-595/U	1.15	0.2	0.1
26.5-40	V637	V	WR-28	UG-599/U	1.15	0.1	0.05

\*For a complete listing of all band letters and codes in use, refer to Band Designation Table on page 386.

Patterns for all models in this series conform to the following description: Beam width in E and H plane varies from 23° at the highest frequency to 34° at the lowest frequency. Side lobes in the H plane are all more than 20 dB down. First side lobes in the E plane are 13 dB down, second side lobes are 18 dB down and all other E plane lobes are more than 20 dB down.

Gain at Mid Frequency; 16.5 dB (with reference to isotropic radiation) variation is 1.5 dB over total band about the mid band value.

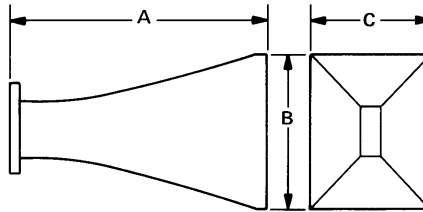
See Waveguide Flange Data on page 397.



# Waveguide Horns

## OUTLINE DRAWING

Standard Gain Horn



MODEL	A MAX	B MAX	C MAX
V637	1.76 (44.7)	1.06 (26.9)	.82 (20.8)
638	2.57 (65.2)	1.51 (38.3)	1.16 (29.4)
639	3.48 (88.3)	2.20 (55.8)	1.73 (43.9)
640	5.06 (128.5)	3.09 (78.4)	3.34 (59.4)
641	6.31 (160.2)	3.83 (97.2)	2.87 (72.8)
642	7.76 (197.1)	4.67 (118.6)	3.53 (89.6)
643	10.47 (265.9)	6.34 (161.0)	4.80 (121.9)
644	15.82 (401.8)	9.52 (241.8)	7.16 (181.8)
645	16.91 (439.7)	14.24 (361.6)	10.43 (264.9)
646	24.91 (632.7)	21.31 (541.2)	15.88 (403.3)

Dimensions in parentheses are in millimeters and for reference only.

All dimensions Max. unless otherwise specified.

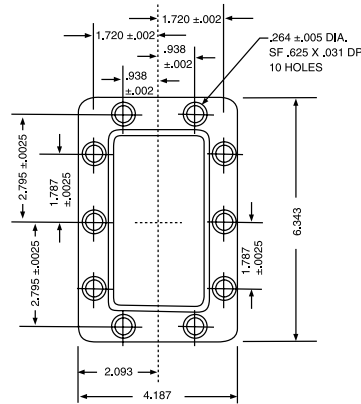
# Waveguide Horns

## REFERENCE GUIDE

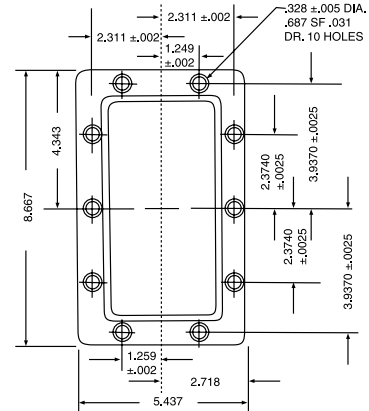
### WAVEGUIDE TO COAXIAL ADAPTERS FOR STANDARD GAIN HORN

STANDARD GAIN HORN MODEL	WAVEGUIDE TO COAXIAL TYPE N - FEMALE MODEL	ADAPTER SMA/3.5/2.9 FEMALE MODEL
646	616	—
645	615	—
644	614A	—
643	613A	—
642	612A	4602
641	611	—
640	601A	4601
639	609	4609
638	—	4608B
V637	—	V4607

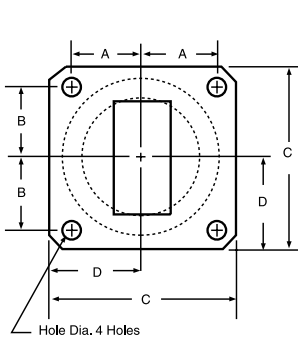
# Waveguide Flange Data



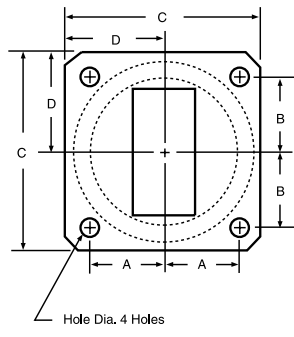
LS BAND



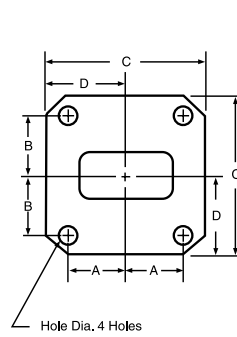
L BAND



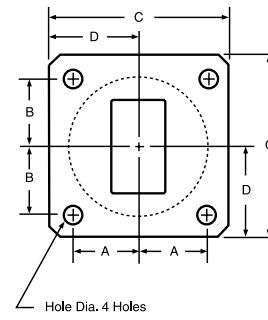
X BAND



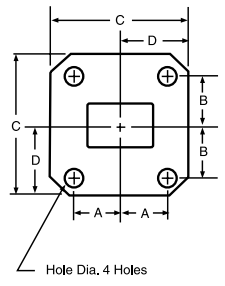
XB BAND



K BAND

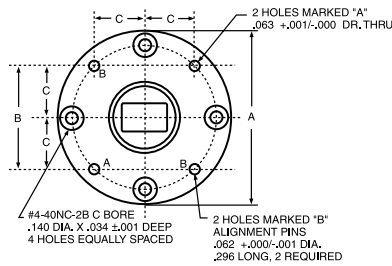


KU BAND



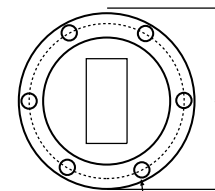
V BAND

BAND*	TYPE	A	B	C	D	HOLE DIA.
X	UG-39/U	.640	.610	1.625	.813	.169
XB	UG-51/U	.737	.676	1.875	.938	.169
K	UG-595/U	.320	.335	.875	.438	.116
KU	UG-419/U	.478	.497	.313	.656	.144
V	UG-599/U	.250	.265	.750	.375	.116



K, V, Q, M, E BAND

BAND*	TYPE	A	B	C
K	UG-425/U	1.125	.937	.331
V	UG-381/U	1.125	.937	.331
Q	UF-383/U	1.125	.937	.331
M	UF-385/U	.75	.562	.199
E	UG-387/U	.75	.562	.199



XN, C, S BAND

BAND*	TYPE	A	HOLE DIA.
S	UG-53/U	5.313	.257
C	UG-149A/U	3.625	.199

\*For a complete listing of all band letters and codes in use, refer to Band Designation Table on page 386.