

WR-42 Standard Waveguide Horn With Square Cover Flange and 20 dBi Nominal Gain Operating From 18 GHz to 26.5 GHz Frequency Range

Waveguide standard gain horn antennas are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near constant electrical performance across a broad bandwidth. Fairview Microwave's SH142-20 WR-42 waveguide standard gain horn antenna operating from 18 GHz to 26.5 GHz with a nominal 20 dBi gain is part of our full line of RF components available for same-day shipping. This pyramidal horn antenna has a lightweight anodized aluminum body and a precision tolerance square cover flange. The SH142-20 WR-42 waveguide standard gain horn antenna offers low gain variation across its operating frequency range and 17.8 degrees of half power beam width.

Configuration

Design	WR-42 Standard Gain Horn
Pattern	Directional
Polarization	Linear

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	18		26.5	GHz
Nominal Gain		20		dBi
Horizontal 3dB Beam Width		17.8		Deg
Vertical 3dB Beam Width		17.5		Deg

Electrical Specification Notes:

3 dB beam width is calculated by computer simulation.

Mechanical Specifications

Size	
Length	4.025 in [102.24 mm]
Width/Diameter	2.26 in [57.4 mm]
Height	1.56 in [39.62 mm]
Weight	0.1739 lbs [78.88 g]

Waveguide Interface

Waveguide Size	WR-42
Flange Type	Square Cover
Body Material and Plating	Anodized Aluminum



Features:

- Rectangular Waveguide Interface
- 18 GHz to 26.5 GHz
- 20 dBi Nominal Gain
- Square Cover Flange

Applications:

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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WR-42 Standard Waveguide Horn With Square Cover Flange and 20 dBi Nominal Gain Operating From 18 GHz to 26.5 GHz Frequency Range from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

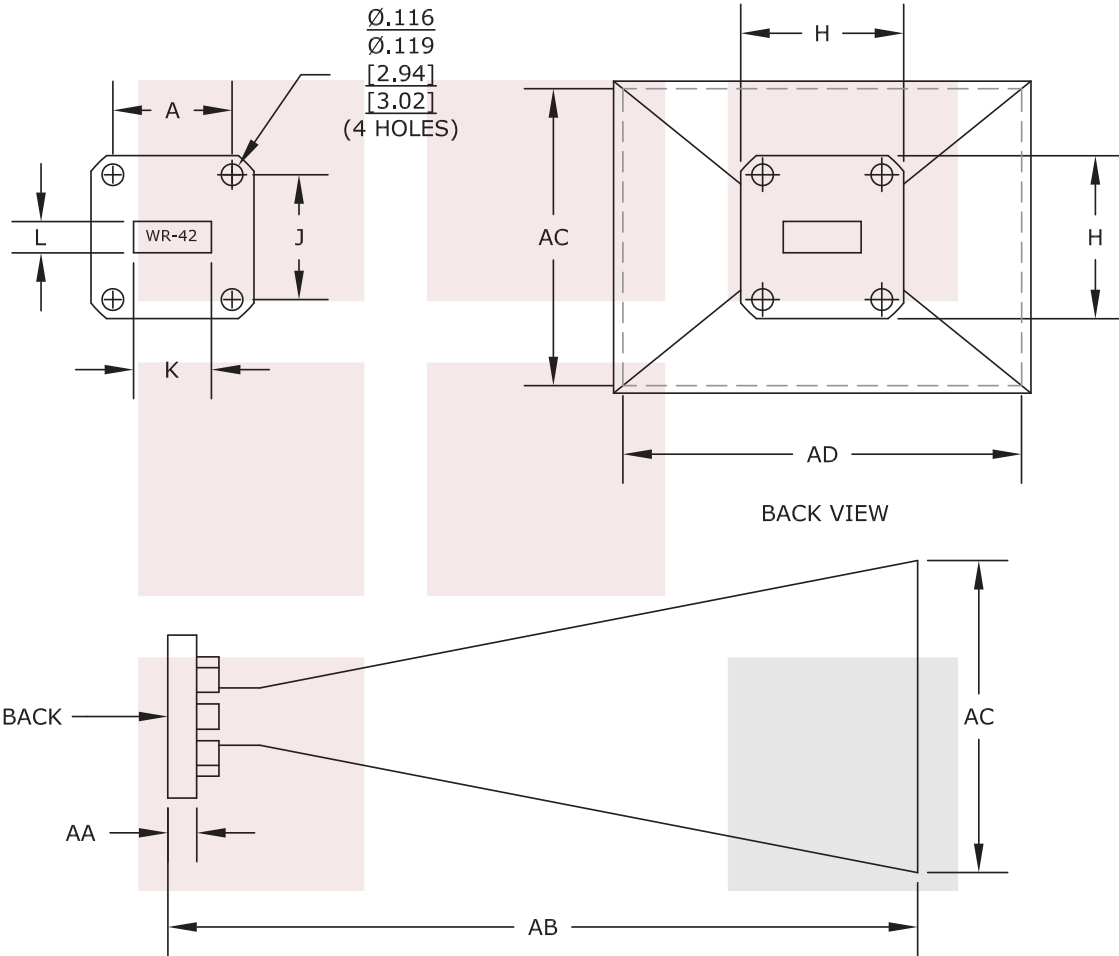
For additional information on this product, please click the following link: [WR-42 Standard Waveguide Horn With Square Cover Flange and 20 dBi Nominal Gain Operating From 18 GHz to 26.5 GHz Frequency Range SH142-20](#)

URL: <https://www.fairviewmicrowave.com/wr-42-standard-gain-horn-antenna-0-db-sh142-20-p.aspx>

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WR42		
Dimension	Inches	mm
A	0.640	16.26
H	0.875	22.23
J	0.670	17.02
K (± 0.002)	0.420	10.67
L (± 0.002)	0.170	4.32
AA	0.155	3.94
AB	4.025	102.24
AC	1.56	42.41
AD	2.13	54.10



STANDARD TOLERANCES	
.X	± 0.2
.XX	± 0.1
.XXX	± 0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE
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DWG NO	SH142-20	CAGE CODE	3FKR5		
CAD FILE	120916	SHEET	SCALE	N/A	SIZE A 41742