

**WR-90 Standard Waveguide Horn With UG-135/U Square Cover Flange and 15 dBi Nominal Gain Operating From 8.2 GHz to 12.4 GHz Frequency Range**

Fairview Microwave's SH190-15 WR-90 waveguide standard gain horn antenna operating from 8.2 GHz to 12.4 GHz with a nominal 15 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 UG-135/U square cover flange. The SH190-15 WR-90 waveguide standard gain horn antenna offers low gain variation across its operating frequency range and 29.3 degrees of half power beam width.

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 WR-90 standard gain horns are available in 10, 15 and 20 dB models with pyramidal shape and rectangular waveguide input.

**Configuration**

Design	WR-90 Standard Gain Horn
Pattern	Directional
Polarization	Linear

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
Nominal Gain		15		dBi
Horizontal 3dB Beam Width		29		Deg
Vertical 3dB Beam Width		29.3		Deg

Electrical Specification Notes:  
 3 dB beam width is calculated by computer simulation.

**Mechanical Specifications**

**Size**

Length	5.45 in [138.43 mm]
Width/Diameter	2.8 in [71.12 mm]
Height	2.05 in [52.07 mm]
Weight	0.272 lbs [123.38 g]

**Waveguide Interface**

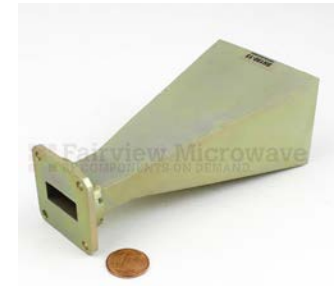
Waveguide Size	WR-90
Flange Type	Square Cover
Flange Designation	UG-135/U
Body Material and Plating	Anodized Aluminum

**Environmental Specifications**

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

**Plotted and Other Data**

Notes:



**Features:**

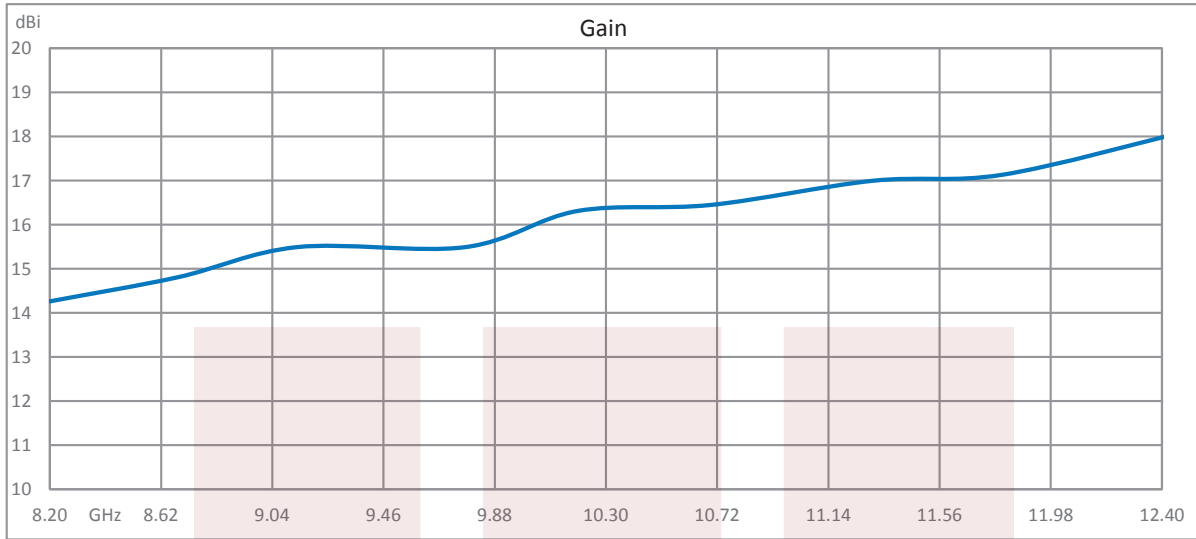
- Rectangular Waveguide Interface
- 8.2 GHz to 12.4 GHz
- 15 dBi Nominal Gain
- UG-135/U Square Cover Flange

**Applications:**

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

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**Typical Performance Data**



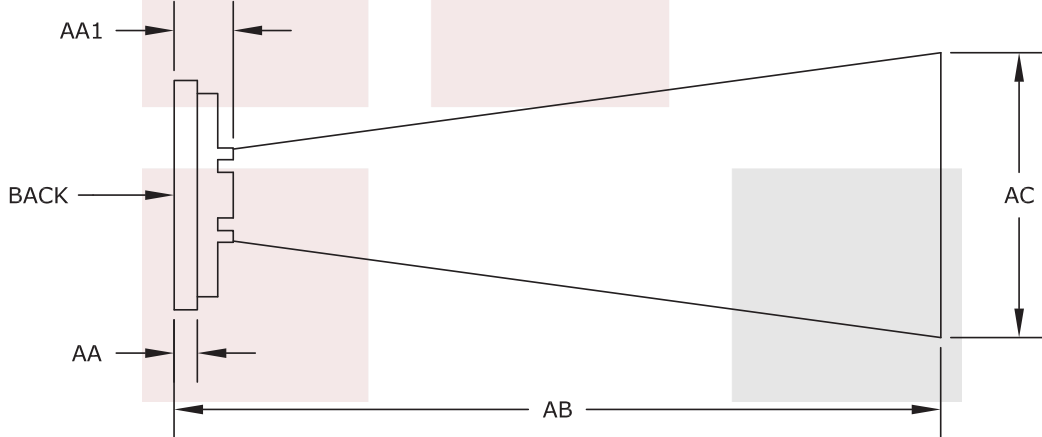
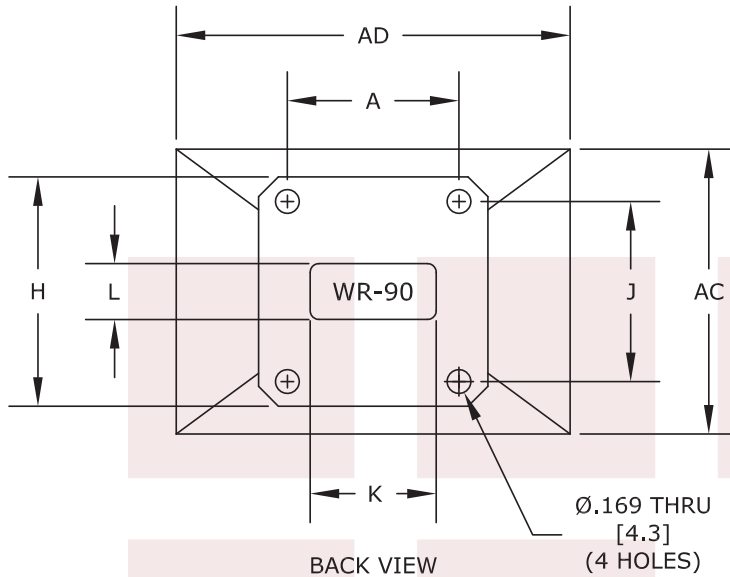
WR-90 Standard Waveguide Horn With UG-135/U Square Cover Flange and 15 dBi Nominal Gain Operating From 8.2 GHz to 12.4 GHz Frequency Range from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-90 Standard Waveguide Horn With UG-135/U Square Cover Flange and 15 dBi Nominal Gain Operating From 8.2 GHz to 12.4 GHz Frequency Range SH190-15](#)

URL: <https://www.fairviewmicrowave.com/wr-90-standard-gain-horn-antenna-0-db-sh190-15-p.aspx>

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WR90		
Dimension	Inches	mm
A	1.220	30.99
H	1.630	41.40
J	1.280	32.51
K ( $\pm 0.003$ )	0.900	22.86
L ( $\pm 0.003$ )	0.400	10.16
AA	0.160	4.06
AA1	0.440	11.18
AB	5.460	138.68
AC	1.950	49.53
AD	2.660	67.56



STANDARD TOLERANCES	
.X	$\pm 0.2$
.XX	$\pm 0.1$
.XXX	$\pm 0.05$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

**FAIRVIEW MICROWAVE INC.**

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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 <b>SH190-15</b>		CAGE CODE <b>3FKR5</b>		
CAD FILE 120916	SHEET	SCALE N/A	SIZE A	41742