



WR-90 Standard Gain Horn with 10 dBi gain, SMA Female connector

## Technical Data Sheet

**PEWAN090-10SF**

### Features

- 8.2 GHz to 12.4 GHz
- WR-90 Waveguide Band
- 10 dBi Nominal Gain
- SMA Female Connector

### Applications

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems
- Radome Testing
- Automotive Antenna Test
- Solutions
- Radar Cross Section
- Satellite Antenna Testing

### Description

The PEWAN090-10SF standard gain horn antenna (also known as waveguide horn) from Pasternack is part of our comprehensive selection of waveguide antennas. This standard gain horn is mated with a WR-90 to SMA Female waveguide to coaxial adapter and operates from 8.2 GHz to 12.4 GHz.

Our PEWAN090-10SF standard gain horn antenna has a nominal gain of 10 dBi with a Horizontal and Vertical HPBW (Half Power Beam Width) of 52.1 dB and 51.6 dB respectively. Pasternack's SMA Female to WR-90 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the PEWAN090-10SF are used in a wide variety of applications due to the high-power handling capability, low loss, high directivity, and near constant electrical performance. Our WR-90 waveguide antennas with SMA Female interface is part of over 40,000 RF, microwave and millimeter wave components from Pasternack available worldwide and Ship same day.

### Configuration

Design: WR-90 Standard Gain Horn  
Coaxial Interface: SMA Female

### Electrical Specifications

| Description                         | Minimum | Typical | Maximum | Units   |
|-------------------------------------|---------|---------|---------|---------|
| Frequency Range                     | 8.2     |         | 12.4    | GHz     |
| <b>Waveguide Standard Gain Horn</b> |         |         |         |         |
| Gain                                |         | 10      |         | dBi     |
| Horizontal Half Power Beam Width    |         | 52.1    |         | Degrees |
| Vertical Half Power Beam Width      |         | 51.6    |         | Degrees |
| <b>Waveguide to Coaxial Adapter</b> |         |         |         |         |
| Input VSWR                          |         |         | 1.25:1  |         |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Standard Gain Horn with 10 dBi gain, SMA Female connector PEWAN090-10SF](#)



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### Mechanical Specifications

#### Size

|        |                     |
|--------|---------------------|
| Length | 3.351 in [85.12 mm] |
| Width  | 1.63 in [41.4 mm]   |
| Height | 1.63 in [41.4 mm]   |
| Weight | 0.1 lbs [45.36 g]   |

#### RF Connector

|      |            |
|------|------------|
| Type | SMA Female |
|------|------------|

#### Waveguide Interface

|                |       |
|----------------|-------|
| Waveguide Size | WR-90 |
|----------------|-------|

### Environmental Specifications

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

### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Standard Gain Horn with 10 dBi gain, SMA Female connector PEWAN090-10SF](#)

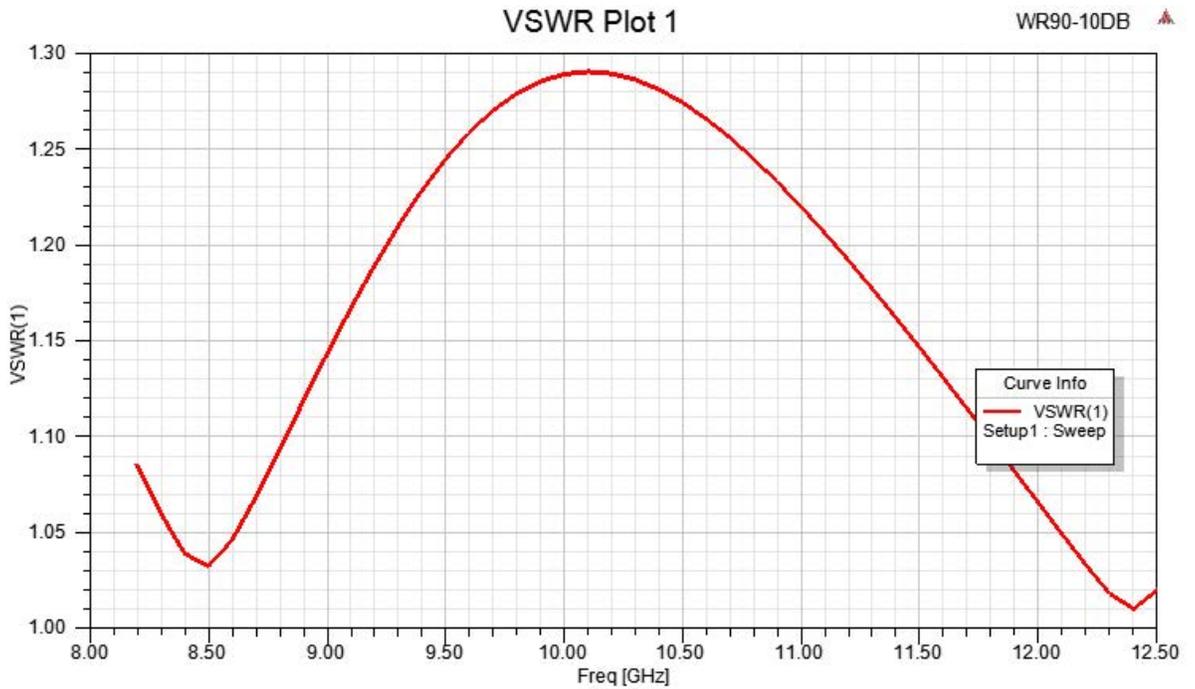


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**Technical Data Sheet**

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Typical Performance Data



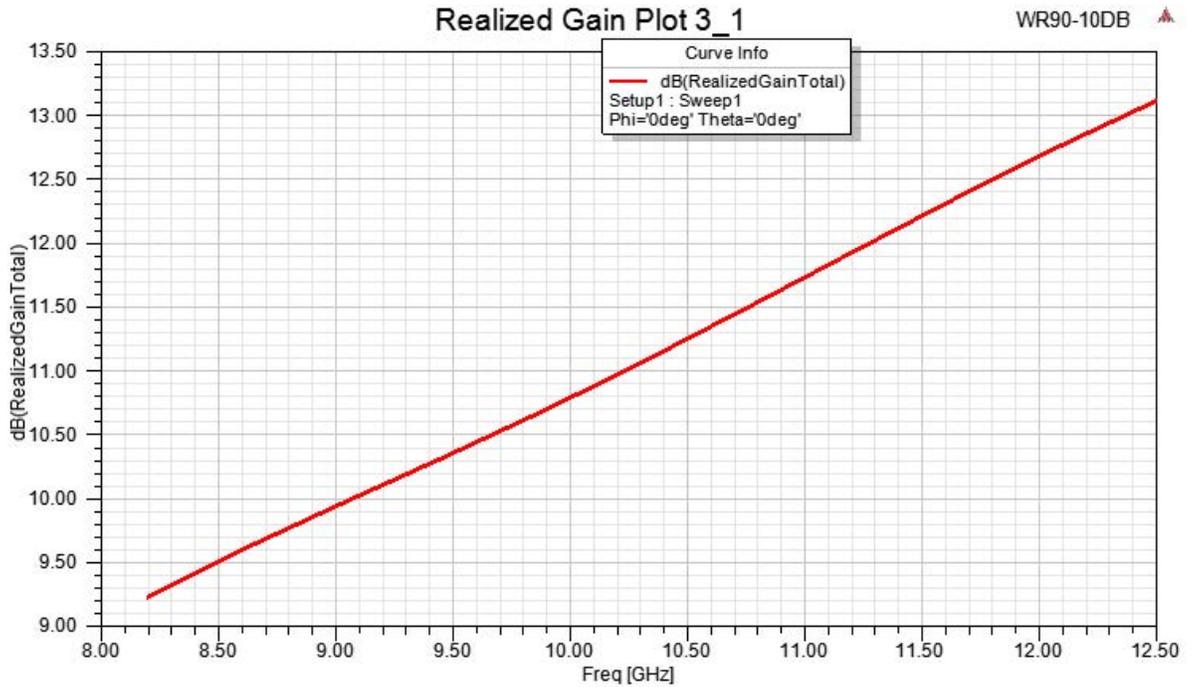
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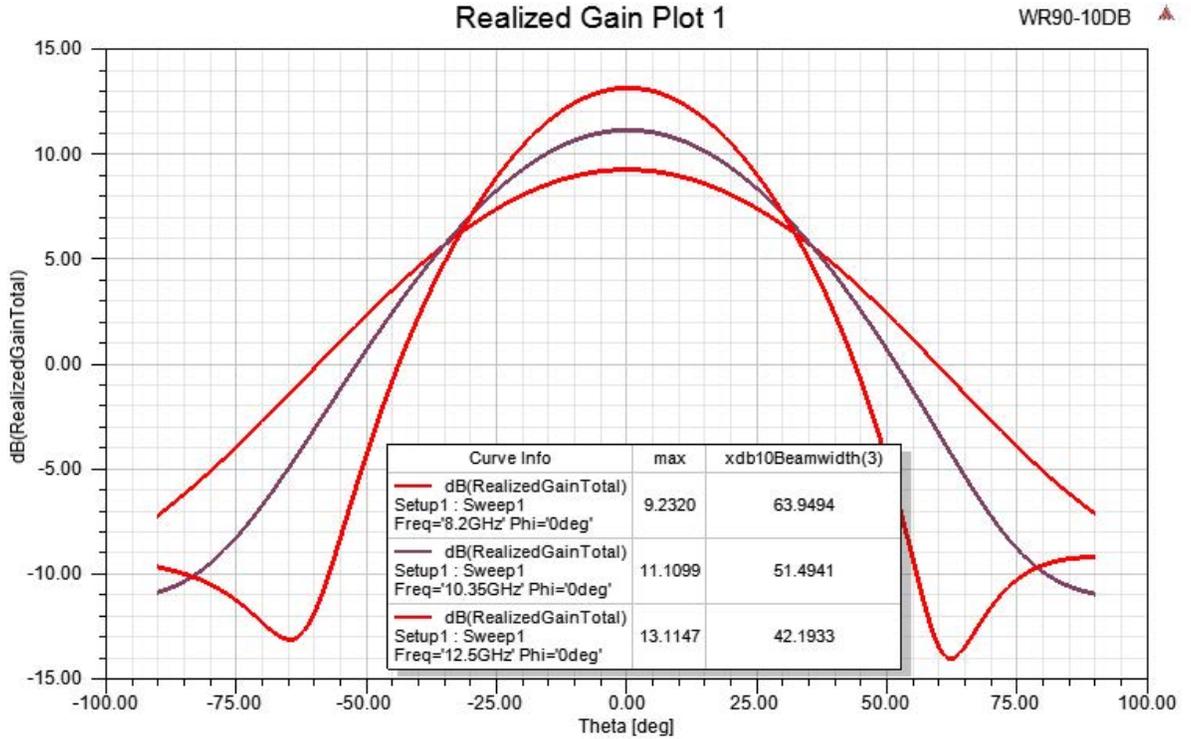
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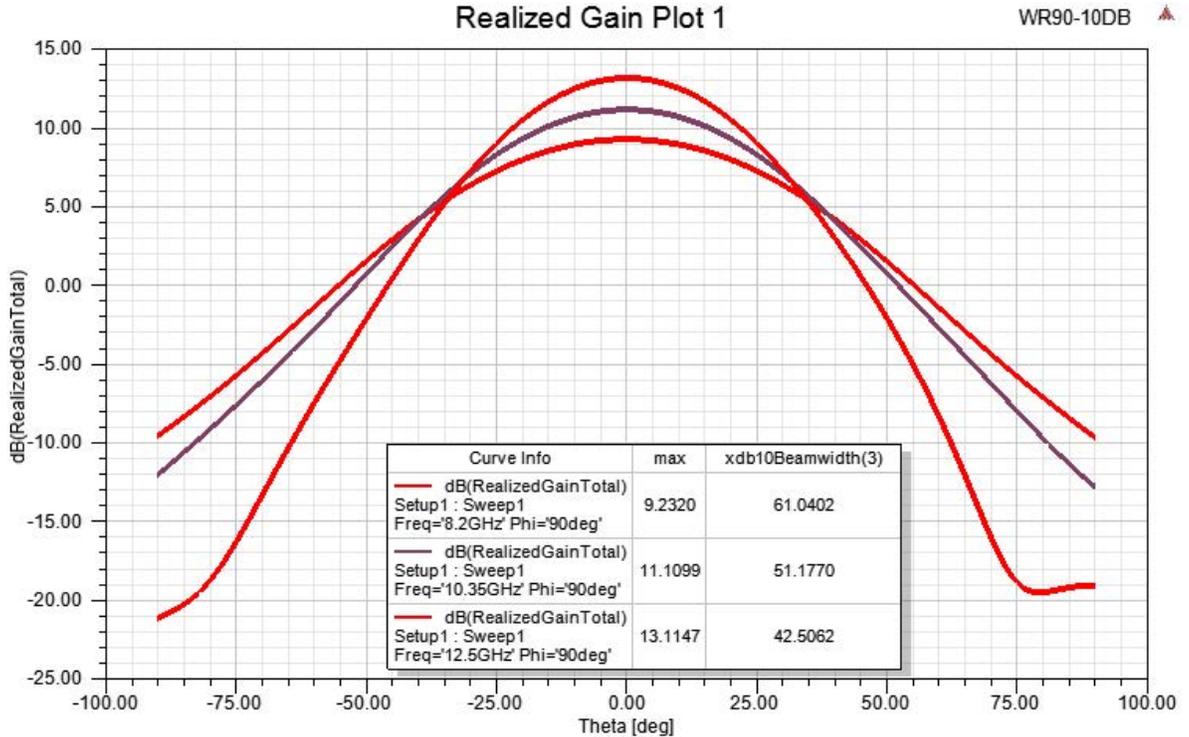
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WR-90 Standard Gain Horn with 10 dBi gain, SMA Female connector from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Standard Gain Horn with 10 dBi gain, SMA Female connector PEWAN090-10SF](#)

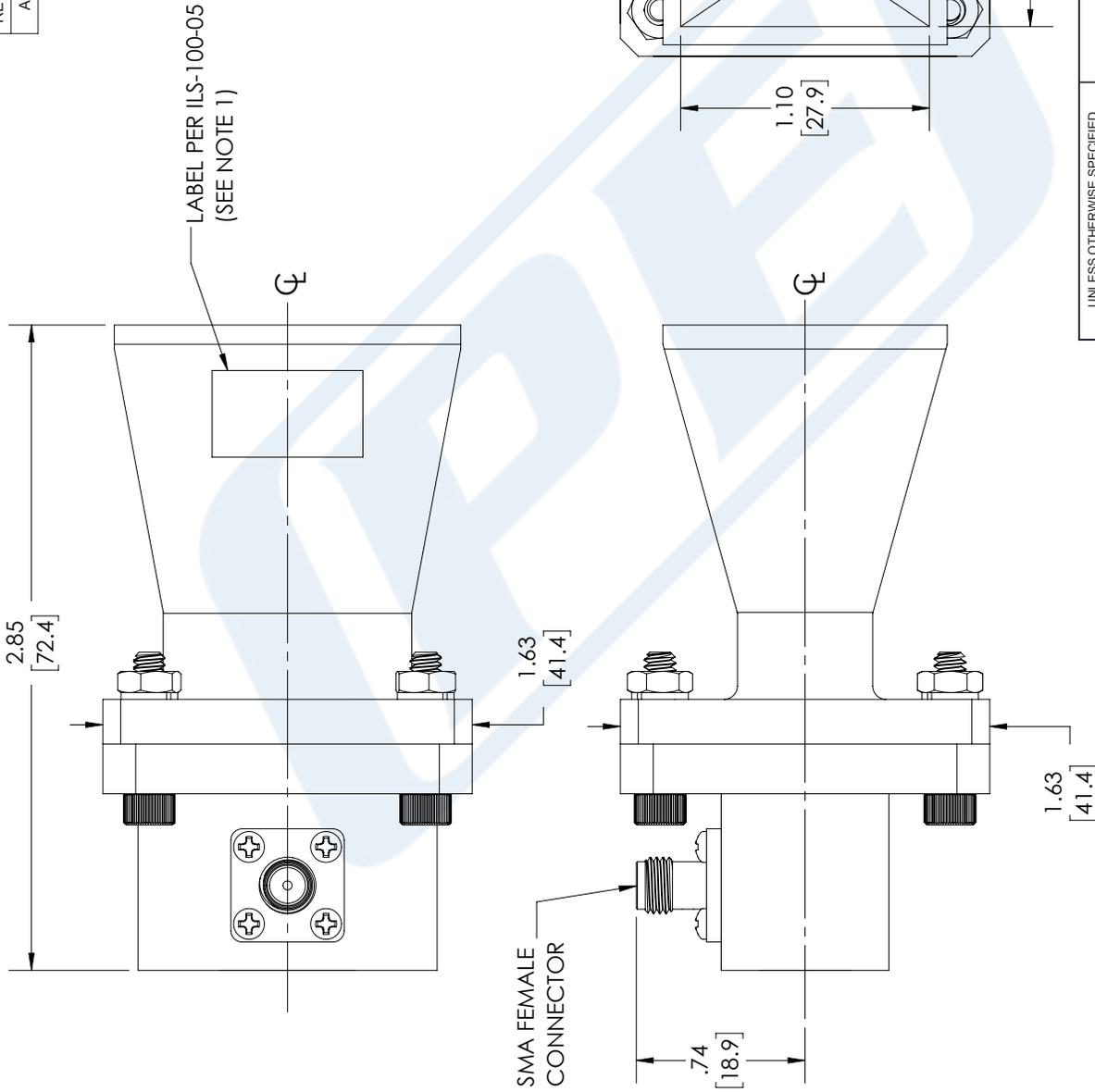
URL:

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PEWAN090-10SF CAD Drawing

WR-90 Standard Gain Horn with 10 dB gain, SMA Female connector

| REVISIONS |                 |            |          |
|-----------|-----------------|------------|----------|
| REV.      | DESCRIPTION     | DATE       | APPROVED |
| A         | INITIAL RELEASE | 10/04/2021 | KHIETPAS |



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

|                    |             |
|--------------------|-------------|
| .X = ±.2 [5.08]    | FRACTIONS   |
| .XX = ±.02 [.51]   | ± 1/32      |
| .XXX = ±.005 [.13] | ANGLES ± 1° |

CABLE LENGTH (L) TOLERANCES:

|                             |                 |
|-----------------------------|-----------------|
| L ≤ 12 [305]                | = +1 [25] / -0  |
| 12 [305] < L ≤ 60 [1524]    | = +2 [51] / -0  |
| 60 [1524] < L ≤ 120 [3048]  | = +4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620] | = +6 [152] / -0 |
| 300 [7620] < L              | = +5%L / -0     |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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|      |           |           |               |
|------|-----------|-----------|---------------|
| SIZE | CAGE CODE | DRAWN BY  | ITEM NO.      |
| A    | 53919     | BPUCHASKI | PEWAN090-10SF |

REV A

**NOTES:**  
1. LABEL PER ILS-100-05 (FOR INTERNAL REFERENCE ONLY)  
LABEL LOCATION FOR REFERENCE ONLY

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