



Technical Data Sheet

PE1WAN090-20ELSF

Features

- 8.2 GHz to 12.4 GHz
- · WR-90 Waveguide Band
- · 20 dBi Nominal Gain

- SMA Female End Launch Connector
- · Ruggedized Aluminum Cage-Style Mount
- · Integrates with Positioning Systems

Applications

- Antenna Measurements
- Wireless Communication
- · Laboratory Use

- Microwave Radio Systems
- Radome Testing
- Automotive Antenna Test

Solutions

- Radar Cross Section
- · Satellite Antenna Testing

Description

The PE1WAN090-20ELSF standard gain horn antenna with integrated cage-style mount (also known as waveguide horn) from Pasternack is part of our comprehensive selection of waveguide antennas. The cage-style mount is a ruggedized aluminum mounting solution that integrates with test and measurement positioning systems, ensuring precise alignment and protection of the antenna. This standard gain horn is mated with a WR-90 to SMA Female End Launch waveguide to coaxial adapter and operates from 8.2 GHz to 12.4 GHz.

Our PE1WAN090-20ELSF standard gain horn antenna with integrated cage-style mount has a nominal gain of 20 dBi with a Horizontal and Vertical HPBW (Half Power Beam Width) of 17.5 dB and 17.3 dB respectively. Pasternack's SMA Female End Launch 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 PE1WAN090-20ELSF 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 End Launch interface is part of over 40,000 RF, microwave and millimeter wave components from Pasternack available worldwide and ship same day.

Configuration

Design Coaxial Interface WR-90 Standard Gain Horn

SMA Female

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|----------------------------------|---------|---------|---------|---------|
| requency Range | 8.2 | | 12.4 | GHz |
| Vaveguide Standard Gain Horn | | | | |
| Gain | | 20 | | dBi |
| Horizontal Half Power Beam Width | | 17.5 | | Degrees |
| Vertical Half Power Beam Width | | 17.3 | | Degrees |
| Vaveguide to Coaxial Adapter | | | | |
| 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 20 dBi gain, End Launch SMA Female connector, Integrated Cage-Style Mount PE1WAN090-20ELSF

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451

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Mechanical Specifications

Size

 Length
 4.724 in [119.99 mm]

 Width
 4.724 in [119.99 mm]

 Height
 12.72 in [323.09 mm]

 Weight
 1.18355 lbs [536.85 g]

RF Connector

Type SMA Female Specification End Launch

Waveguide Interface

Waveguide Size WR-90

Environmental Specifications

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

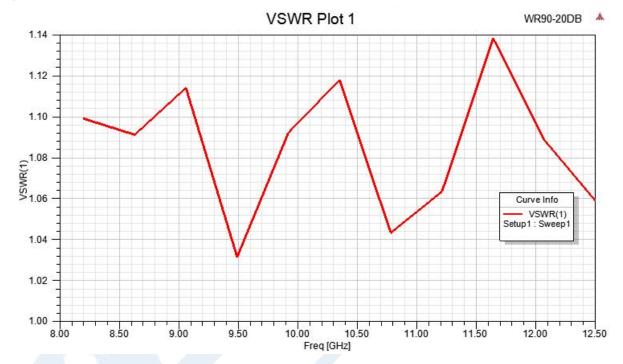




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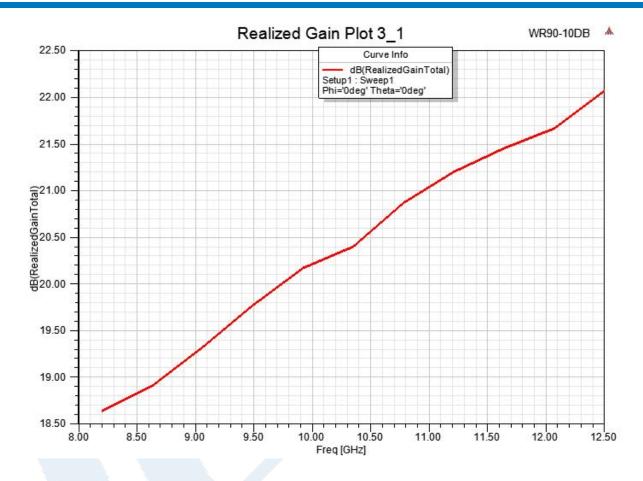






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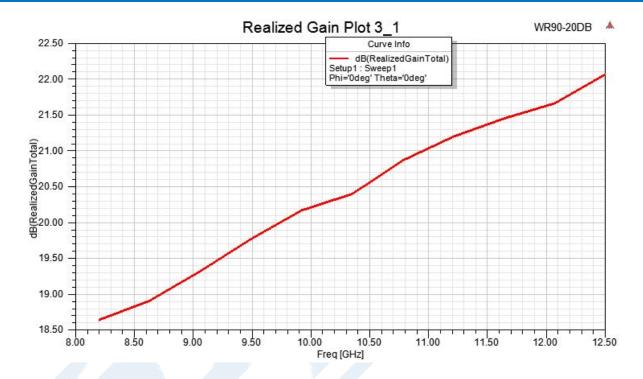






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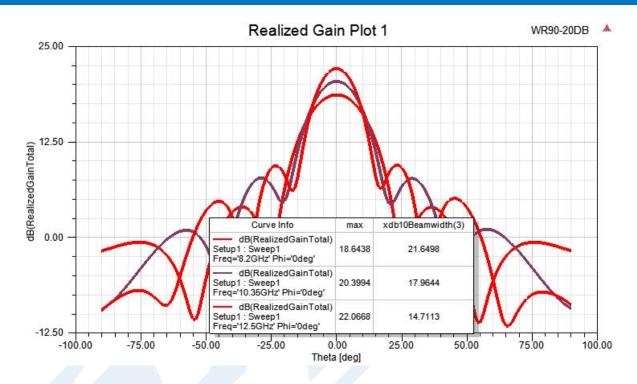






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WR-90 Standard Gain Horn with 20 dBi gain, End Launch SMA Female connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain 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 20 dBi gain, End Launch SMA Female connector, Integrated Cage-Style Mount PE1WAN090-20ELSF

URL: https://www.pasternack.com/wr-90-standard-gain-horn-with-20-dbi-gain-end-launch-sma-female-connector-integrated-cage-style-mount-pe1wan090-20elsf-p.aspx

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.

PE1WAN090-20ELSF CAD Drawing
WR-90 Standard Gain Horn with 20 dBi gain, End Launch SMA Female connector, Integrated Cage-Style Mount ш DESCRIPTION WR-90 STANDARD GAIN HORN WITH 20 DBI GAIN, END LAUNCH SMA FEMALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 APPROVED KHIETPAS Ø3.937 [100.00] BC 1 P SHEET PE1WAN090-20ELSF \bigoplus NONE CHANGED BY HBAKKE SCALE PASTERNACK TEM NO. Website: www.Pasternack.com Phone: 1.866.727.8376 | 1.949.261.1920 10/20/2023 MOUNT DATE an INFINIT® brand HBAKKE REVISION 8X Ø.217 [5.50] Ø1.969 [50.00] 2 DRAWN BY INITIAL RELEASE DESCRIPTION SMA FEMALE CONNECTOR CAGE CODE 53919 .31 SIZE ALL DIMENSIONS ARE FOR REFERENCE ONLY
AND SUBJECT TO CHANGE WITHOUT NOTICE.
UN-DIMENSIONEDMON-CRITICAL FEATURES
MAY VARY IN SIZE AND LOCATION
COLORS MAY VARY ± 1/32 ANGLES ± 1° <12 | 305| < -0
>12 | 305| < -0
>12 | 305| < 60 | 1524| = +2 | 51| / -0
>60 | 1524| = +2 | 51| / -0
>120 | 3048| < 300 | 7620| = +6 | 152| / -0
>300 | 7620| = +6 | 752| / -0 FRACTIONS UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETER CABLE LENGTH TOLERANCES: က TOLERANCES: REV 3.15 [80.0] ⋖ $X = \pm .2$ [5] $XX = \pm .02$ [0.5] $XXX = \pm .005$ [0.13] ZONE 8.0 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITES, TECHNOLOGY OR WHOLE WITHOUT THE WRITTEN PROMITE STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO US. LAW PROHIBITED. <u>بن</u> □ 2.44 [62.0] 323.0 WR-90 2 Ø4.724 [120.00] 9 PE DS Rev-D4 Asize ∟ Ш © 2020 Pasternack Enterprises All Rights Reserved PE1WAN090-20ELSF REV 1 ⋖ മ