



WR-90 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount

Technical Data Sheet

PE1WAN090-20SF

Features

- 8.2 GHz to 12.4 GHz
- WR-90 Waveguide Band
- 20 dBi Nominal Gain
- SMA Female 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 PE1WAN090-20SF 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 waveguide to coaxial adapter and operates from 8.2 GHz to 12.4 GHz.

Our PE1WAN090-20SF 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 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 PE1WAN090-20SF 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
Coaxial Interface

WR-90 Standard Gain Horn
SMA Female

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
Waveguide Standard Gain Horn				
Gain		20		dBi
Horizontal Half Power Beam Width		17.5		Degrees
Vertical Half Power Beam Width		17.3		Degrees
Waveguide 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, SMA Female connector, Integrated Cage-Style Mount PE1WAN090-20SF](#)



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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
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Waveguide Interface

Waveguide Size	WR-90
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Environmental Specifications

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

Plotted and Other Data

Notes:

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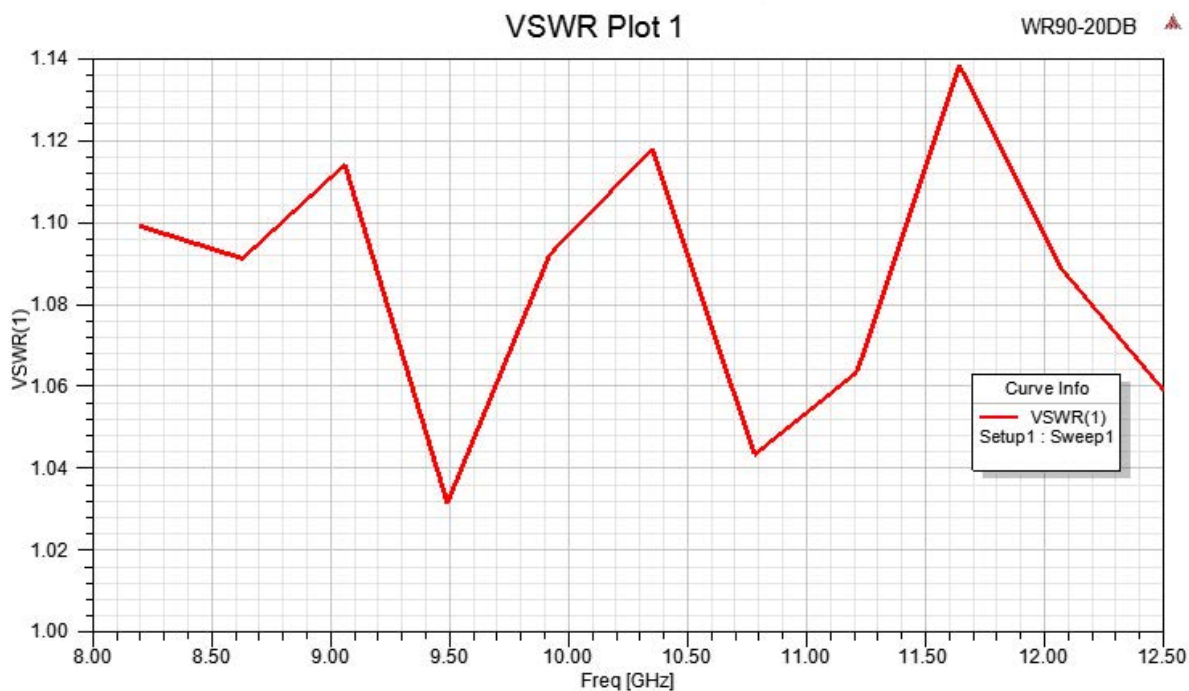


WR-90 Standard Gain Horn with 20 dBi gain, SMA
Female connector, Integrated Cage-Style Mount

Technical Data Sheet

PE1WAN090-20SF

Typical Performance Data



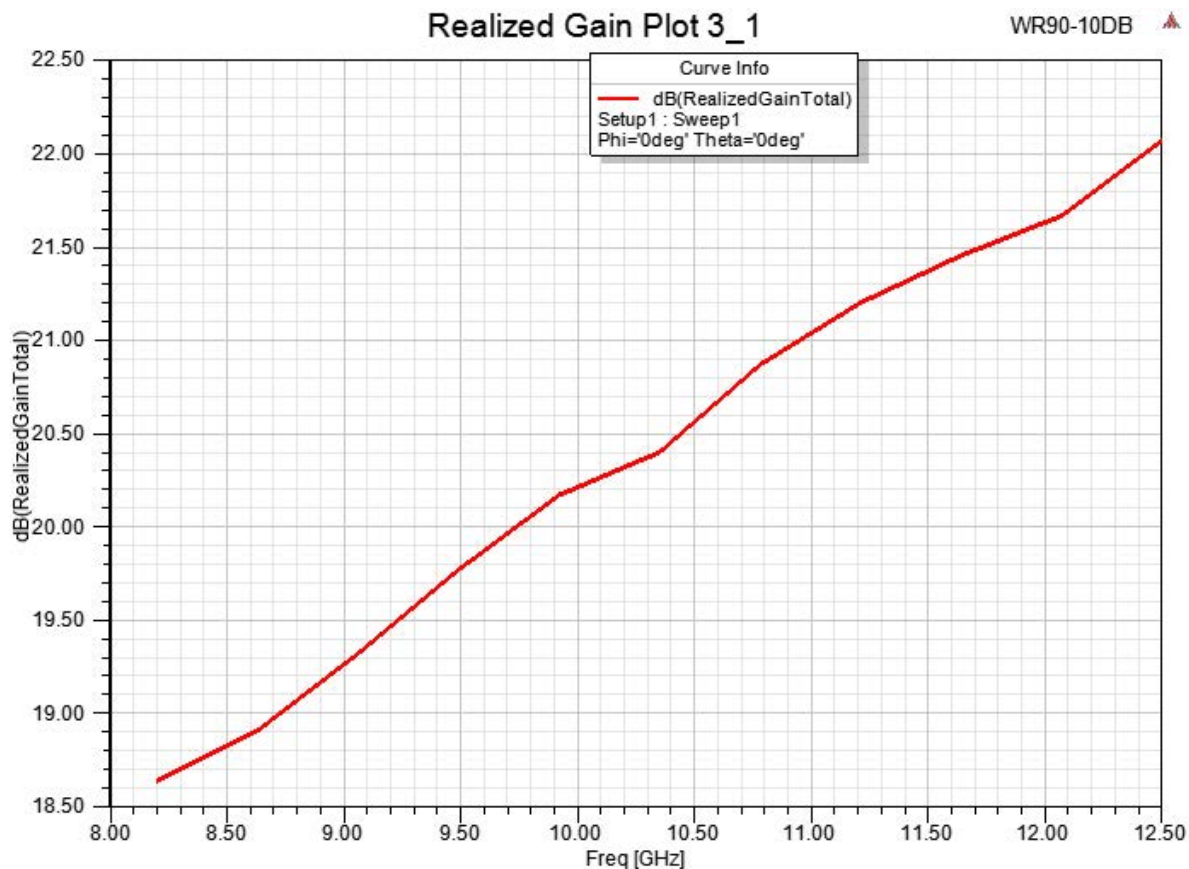
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Female connector, Integrated Cage-Style Mount

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PE1WAN090-20SF



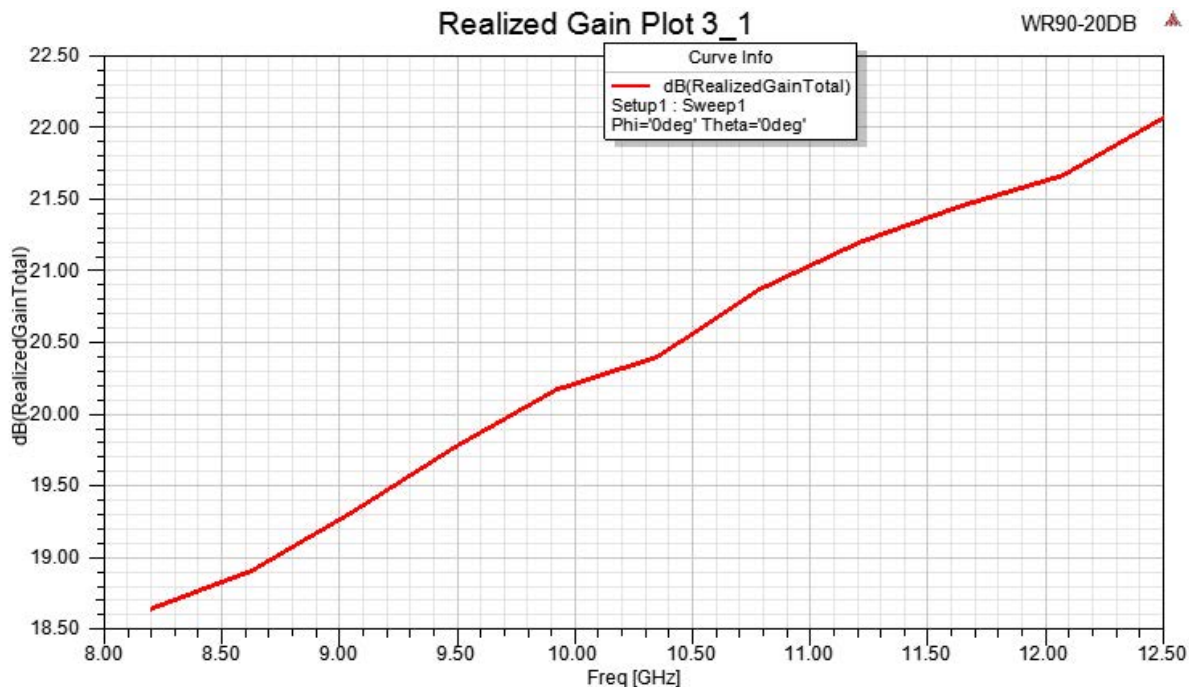
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Female connector, Integrated Cage-Style Mount

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PE1WAN090-20SF



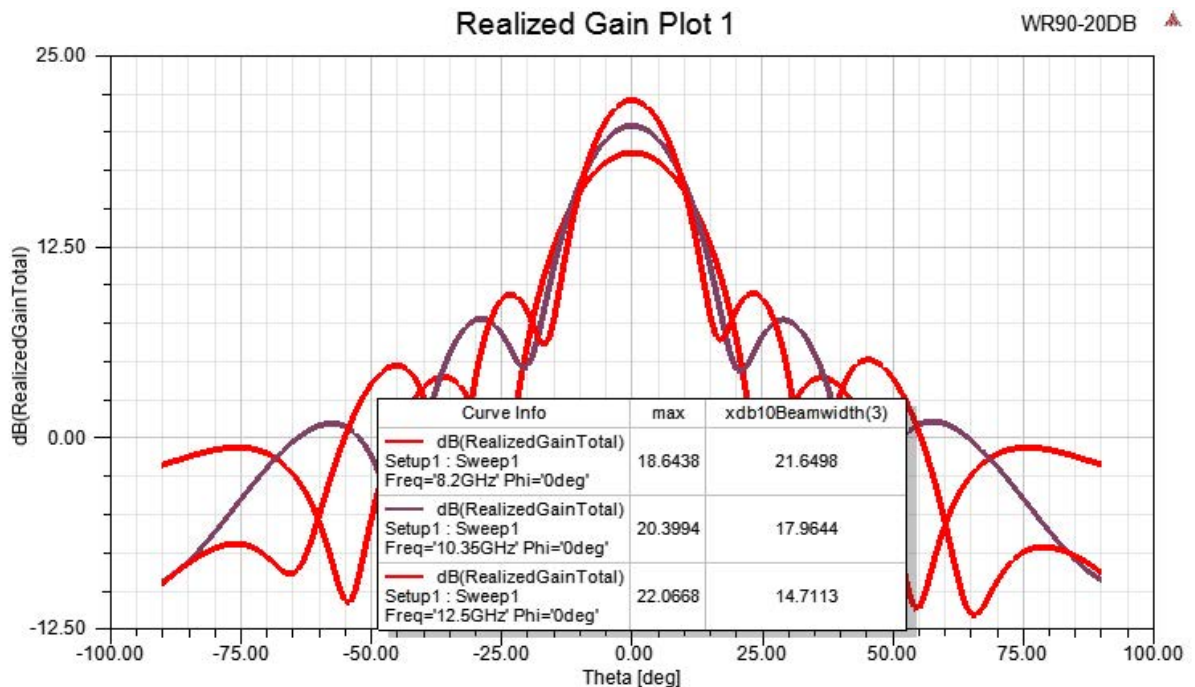
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WR-90 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

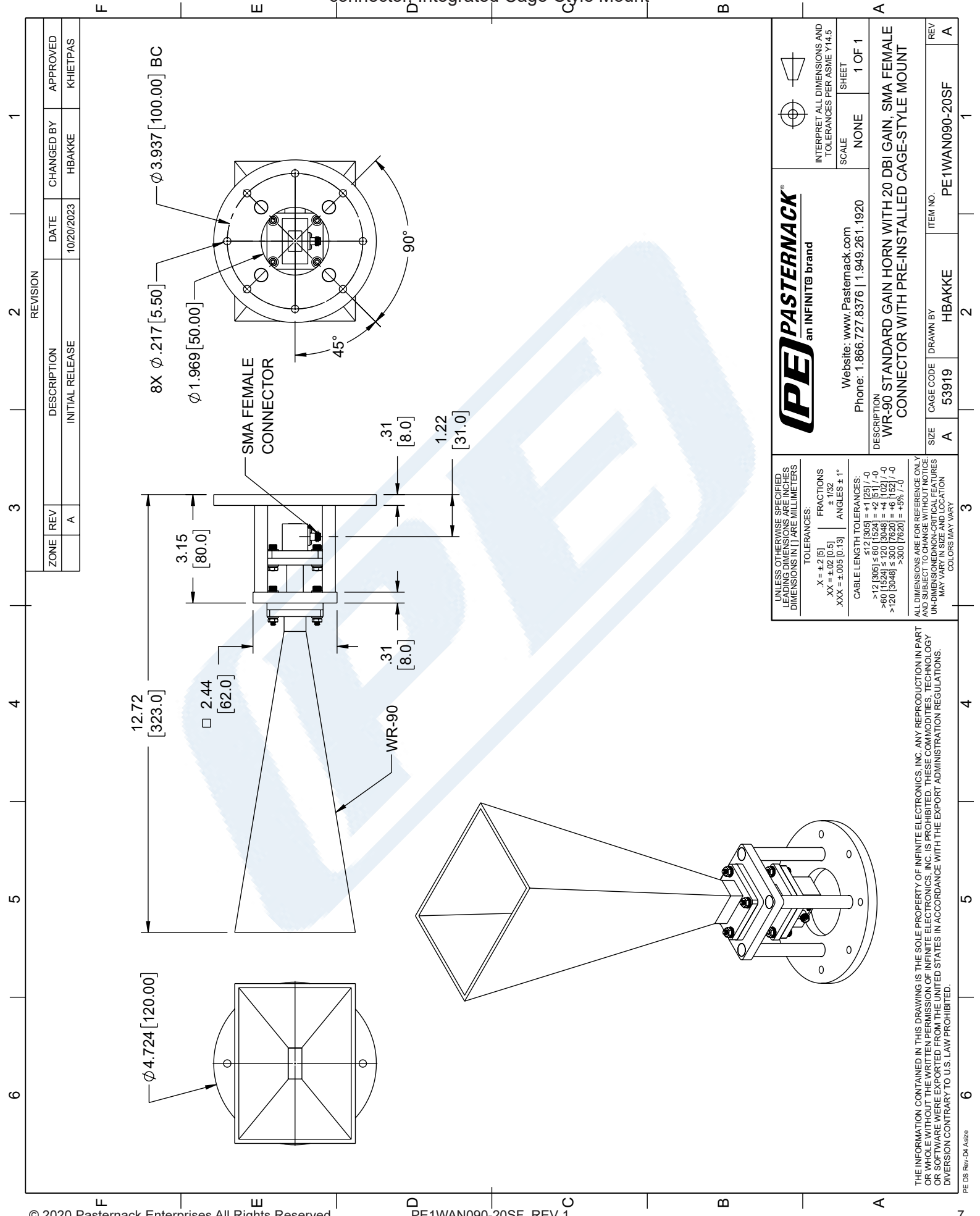
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount PE1WAN090-20SF](https://www.pasternack.com/wr-90-standard-gain-horn-with-20-dbi-gain-sma-female-connector-integrated-cage-style-mount-pe1wan090-20sf-p.aspx)

URL: <https://www.pasternack.com/wr-90-standard-gain-horn-with-20-dbi-gain-sma-female-connector-integrated-cage-style-mount-pe1wan090-20sf-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.

PE1WAN090-20SF CAD Drawing

WR-90 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount



PE PASTERNAK an INFINIT® brand			
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE NONE	SHEET 1 OF 1
DESCRIPTION WR-90 STANDARD GAIN HORN WITH 20 DBI GAIN, SMA FEMALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE MOUNT		REV A	
SIZE A	CAGE CODE 53919	DRAWN BY HBAKKE	ITEM NO. PE1WAN090-20SF

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
X = ± 0.005 [0.13]
XX = ± 0.002 [0.05]
XXX = ± 0.001 [0.025]

FRACTIONS
1/32
1/16
1/8
1/4
1/2
1
2
4
8
16
32
64
128
256
512
1024
2048
4096
8192
16384
32768
65536
131072
262144
524288
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