

## WR-42 Standard Gain Horn with 10 dBi gain, SMA Female connector, Integrated Cage-Style Mount

### Technical Data Sheet

### PE1WAN042-10SF

#### Features

- 18 GHz to 26.5 GHz
- WR-42 Waveguide Band
- 10 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 PE1WAN042-10SF 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-42 to SMA Female waveguide to coaxial adapter and operates from 18 GHz to 26.5 GHz.

Our PE1WAN042-10SF standard gain horn antenna with integrated cage-style mount 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-42 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the PE1WAN042-10SF 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-42 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

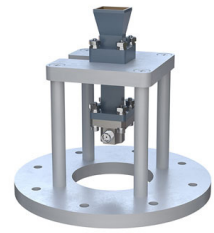
Design  
Coaxial Interface

WR-42 Standard Gain Horn  
SMA Female

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		26.5	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			1.3:1	

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-42 Standard Gain Horn with 10 dBi gain, SMA Female connector, Integrated Cage-Style Mount PE1WAN042-10SF](#)



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**PE1WAN042-10SF**

### Mechanical Specifications

#### Size

Length	4.724 in [119.99 mm]
Width	4.724 in [119.99 mm]
Height	4.33 in [109.98 mm]
Weight	0.6944 lbs [314.97 g]

#### RF Connector

Type	SMA Female
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#### Waveguide Interface

Waveguide Size	WR-42
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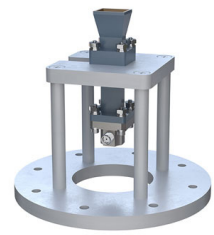
### Environmental Specifications

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

### Plotted and Other Data

Notes:

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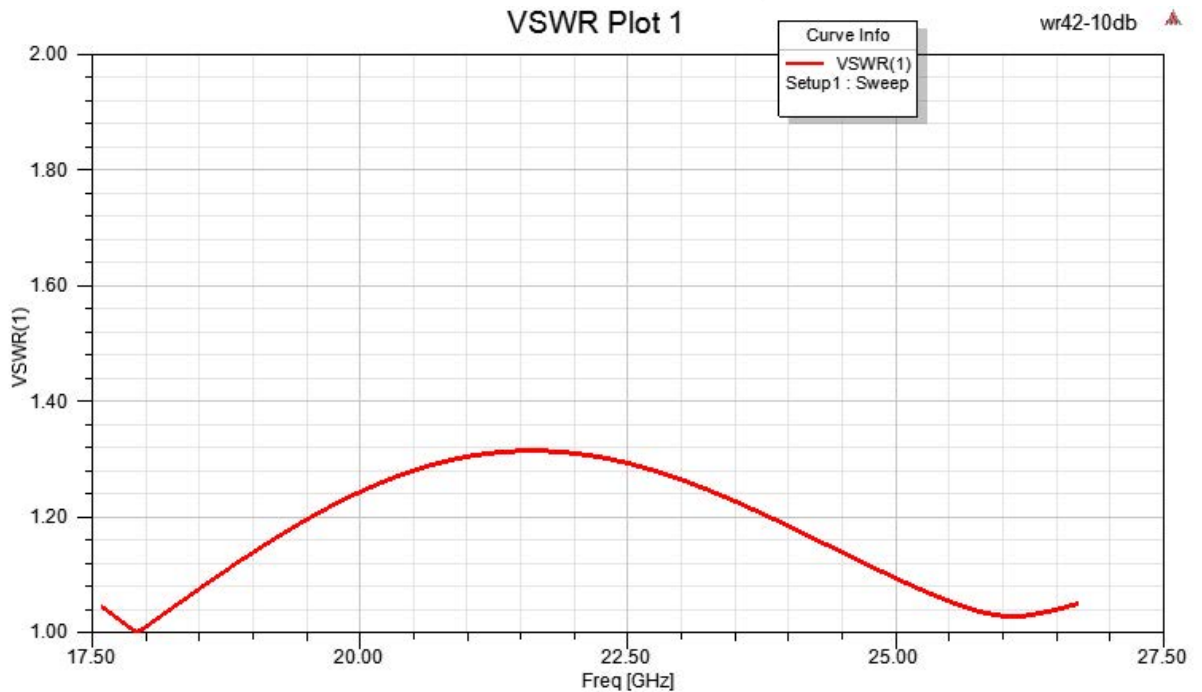


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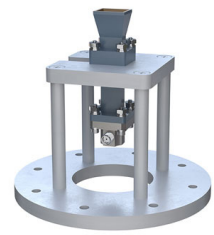
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**PE1WAN042-10SF**

Typical Performance Data



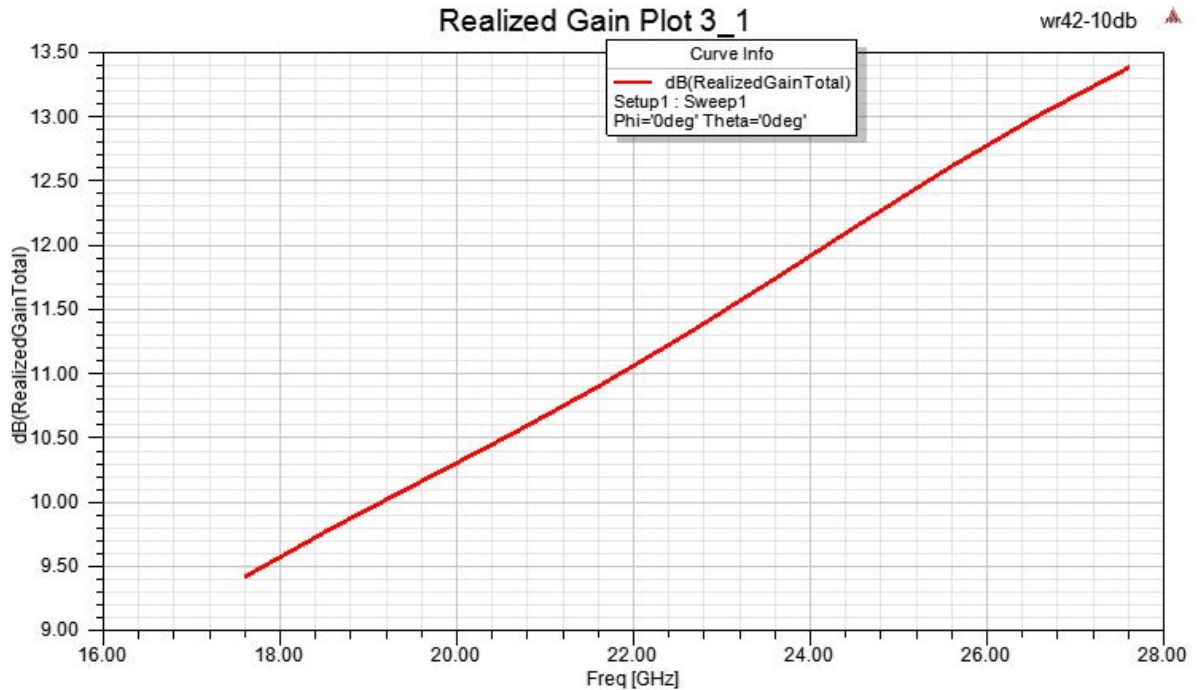
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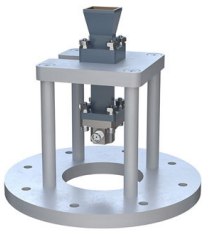
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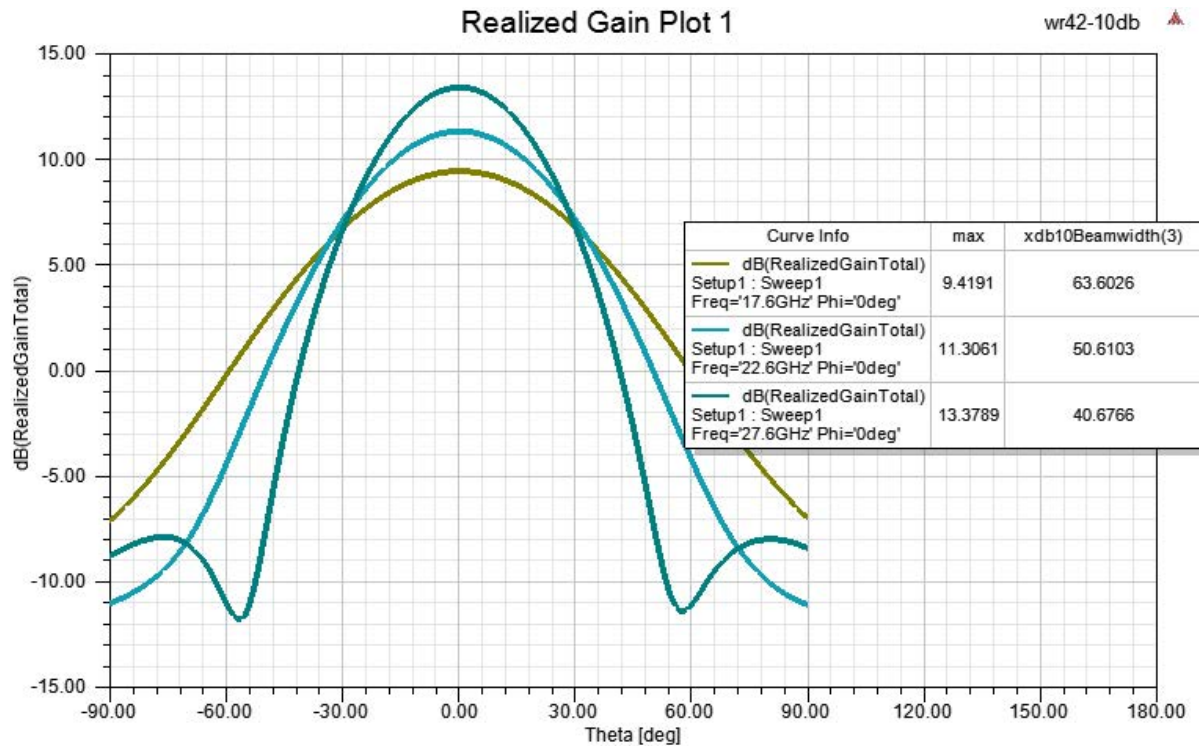
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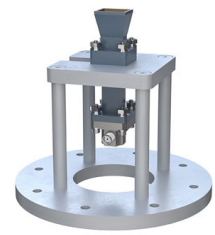
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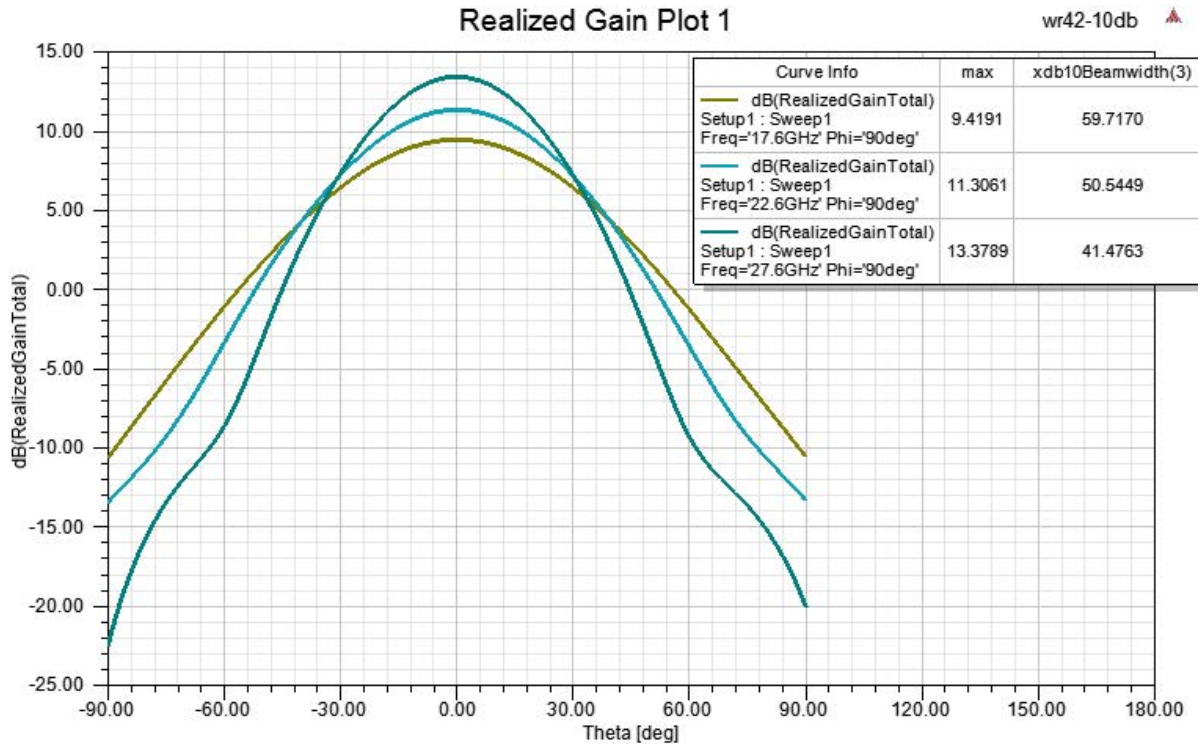




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WR-42 Standard Gain Horn with 10 dBi gain, SMA Female connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

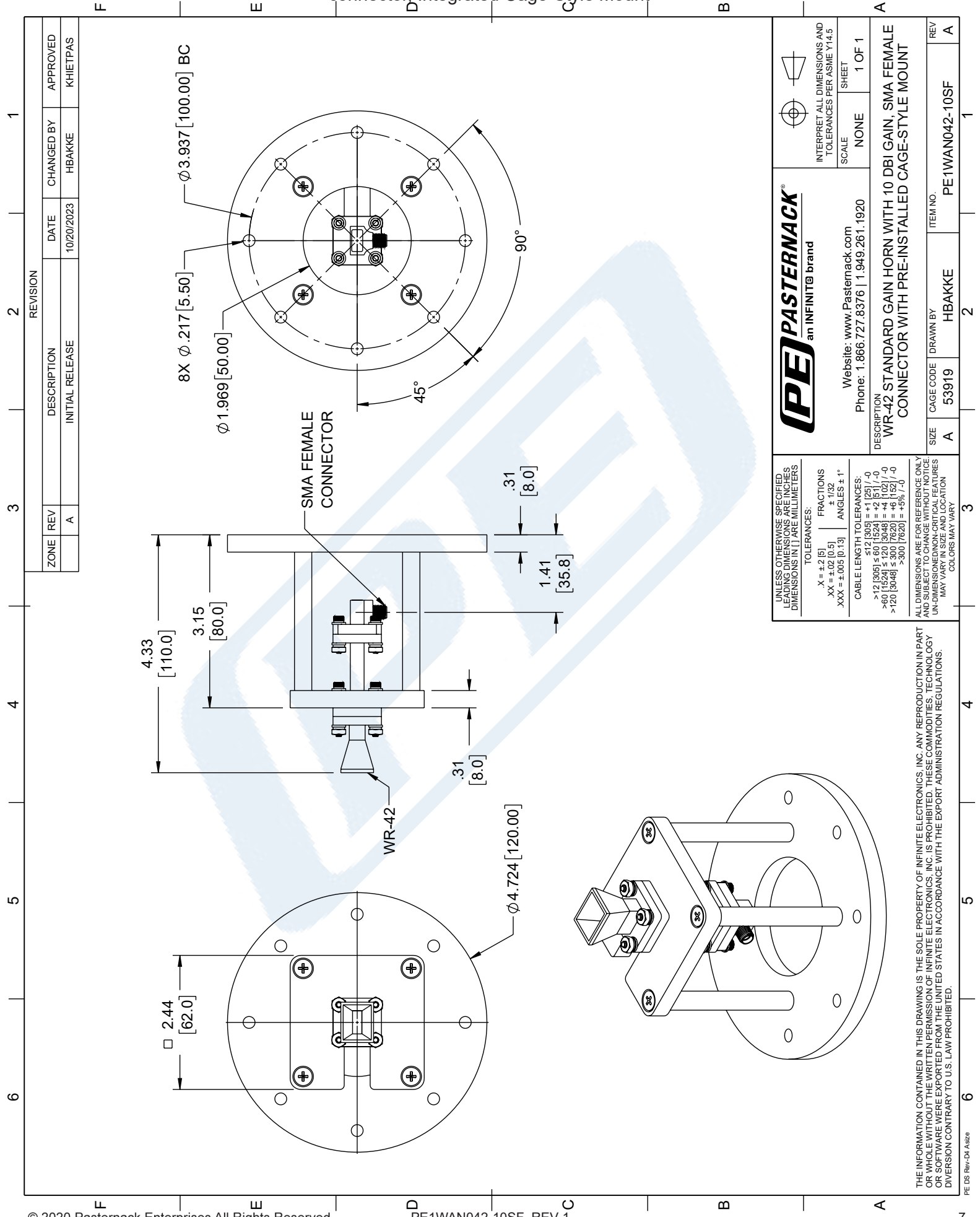
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# PE1WAN042-10SF CAD Drawing

WR-42 Standard Gain Horn with 10 dBi gain, SMA Female connector, Integrated Cage-Style Mount



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Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

DESCRIPTION:  
WR-42 STANDARD GAIN HORN WITH 10 DBI GAIN, SMA FEMALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE MOUNT

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	HBAKKE	PE1WAN042-10SF	A

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

**TOLERANCES:**

X = ±.2 [5]	FRACTIONS
XX = ±.02 [0.5]	± 1/32
XXX = ±.005 [0.13]	ANGLES ± 1°

**CABLE LENGTH TOLERANCES:**

>12 [305] ≤ 30 [762]	±.125 [3.18]
>30 [762] ≤ 60 [1524]	±.25 [6.35]
>60 [1524] ≤ 120 [3048]	±.5 [12.7]
>120 [3048] ≤ 300 [7620]	±1.0 [25.4]
>300 [7620]	±2.0 [50.8]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.

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