

## WR-42 Standard Gain Horn with 10 dBi gain, 2.92mm Female connector, Integrated Cage-Style Mount

### Technical Data Sheet

**PE1WAN042-10KF**

#### Features

- 18 GHz to 26.5 GHz
- WR-42 Waveguide Band
- 10 dBi Nominal Gain
- 2.92mm 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 PE1WAN042-10KF 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 2.92mm Female waveguide to coaxial adapter and operates from 18 GHz to 26.5 GHz.

Our PE1WAN042-10KF 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 2.92mm 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 PE1WAN042-10KF 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 2.92mm Female interface is part of over 40,000 RF, microwave and millimeter wave components from Pasternack available worldwide and ship same day.

#### Configuration

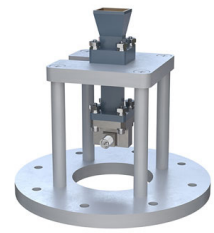
Design  
Coaxial Interface

WR-42 Standard Gain Horn  
2.92mm 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			1.4:1	

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, 2.92mm Female connector, Integrated Cage-Style Mount PE1WAN042-10KF](#)



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### 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	0.7215 lbs [327.27 g]

#### RF Connector

Type	2.92mm Female
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#### Waveguide Interface

Waveguide Size	WR-42
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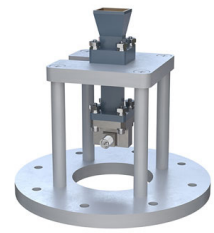
### Environmental Specifications

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

### Plotted and Other Data

Notes:

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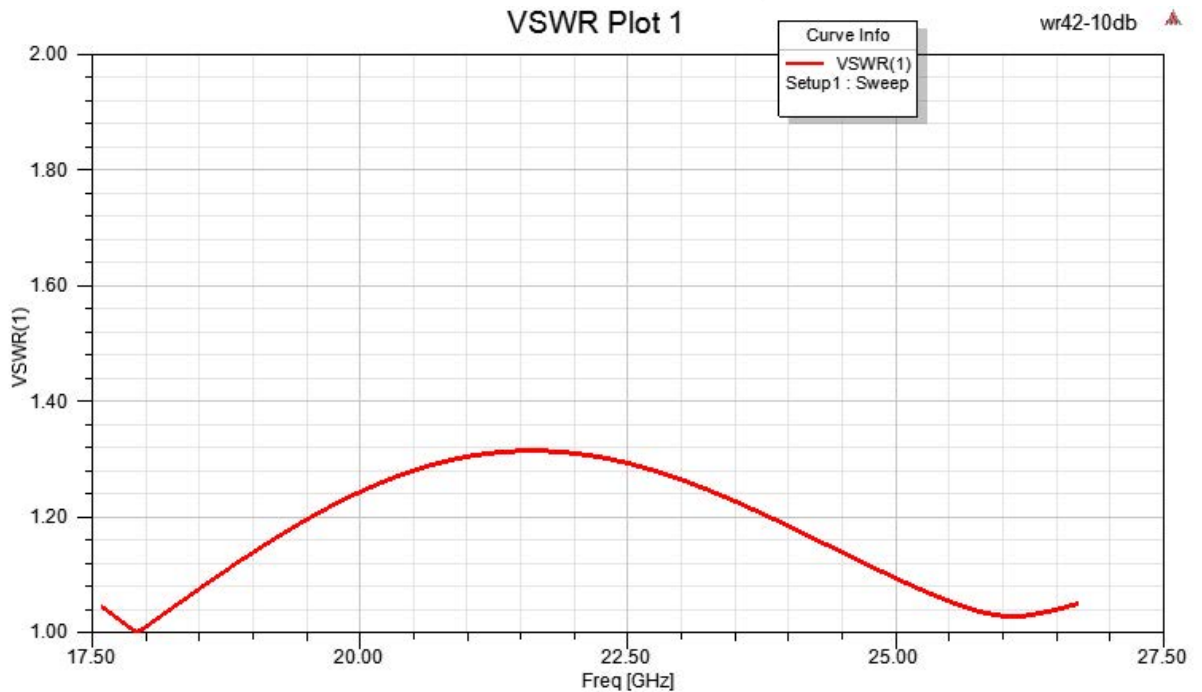


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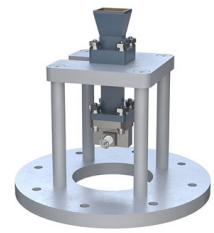
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Typical Performance Data



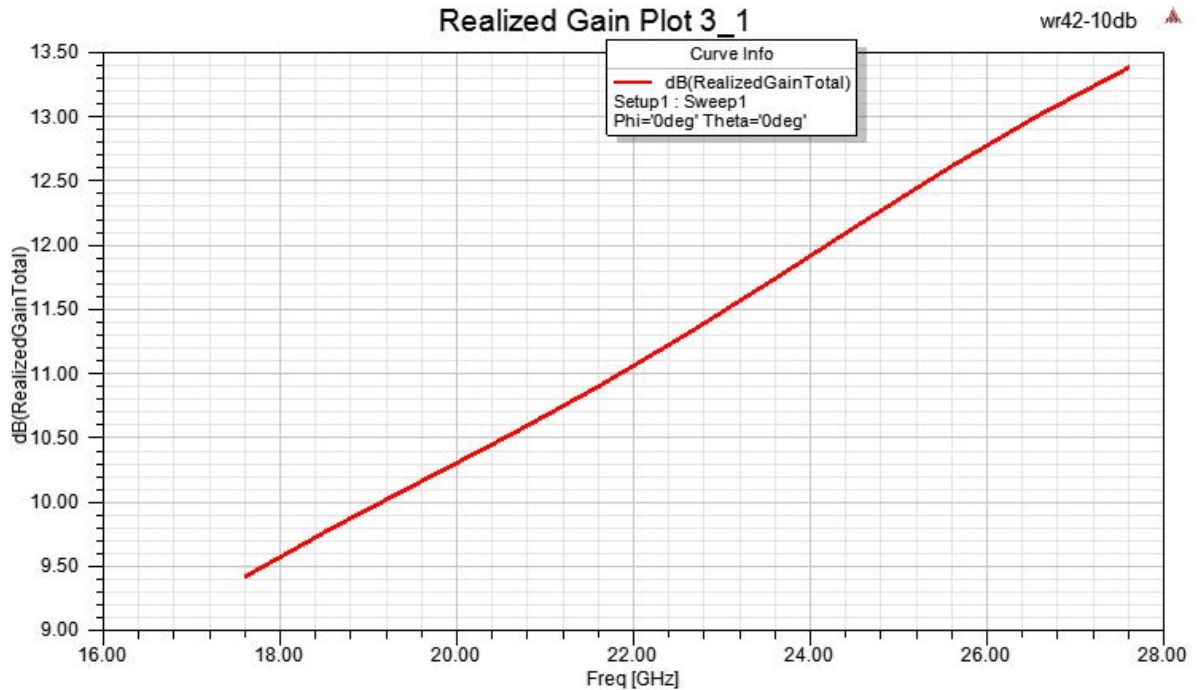
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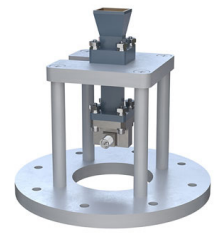
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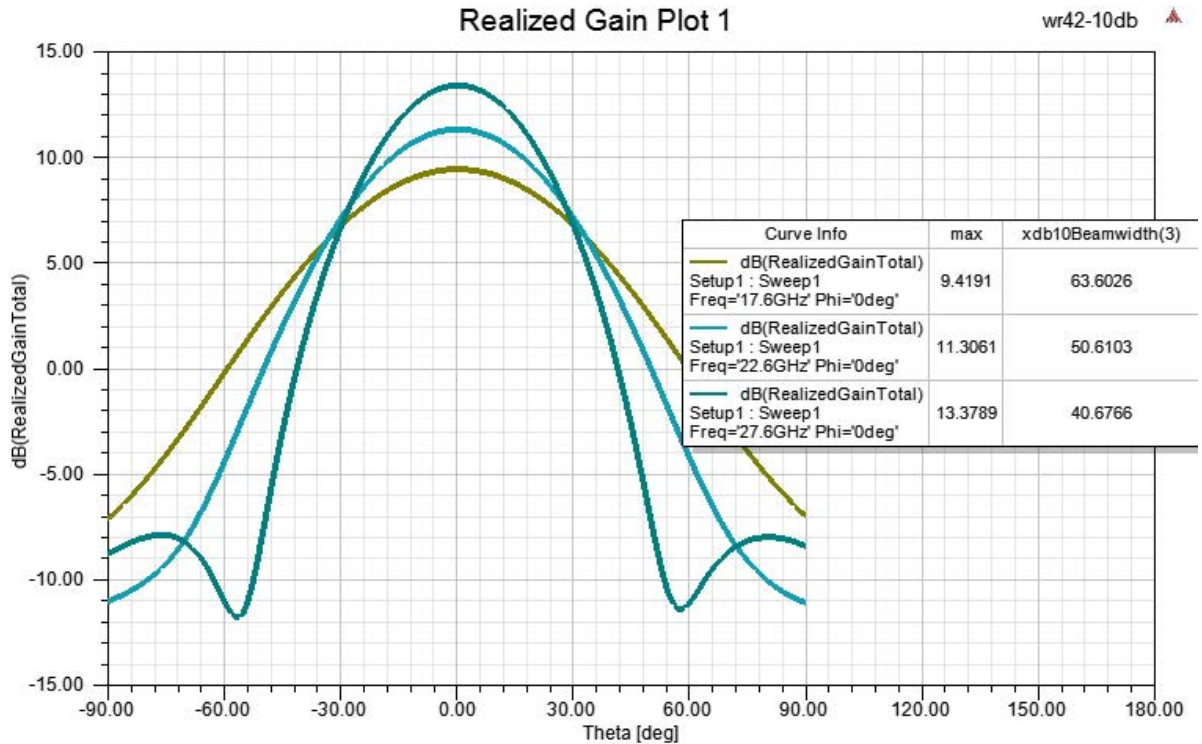
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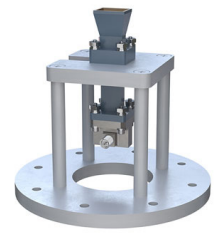
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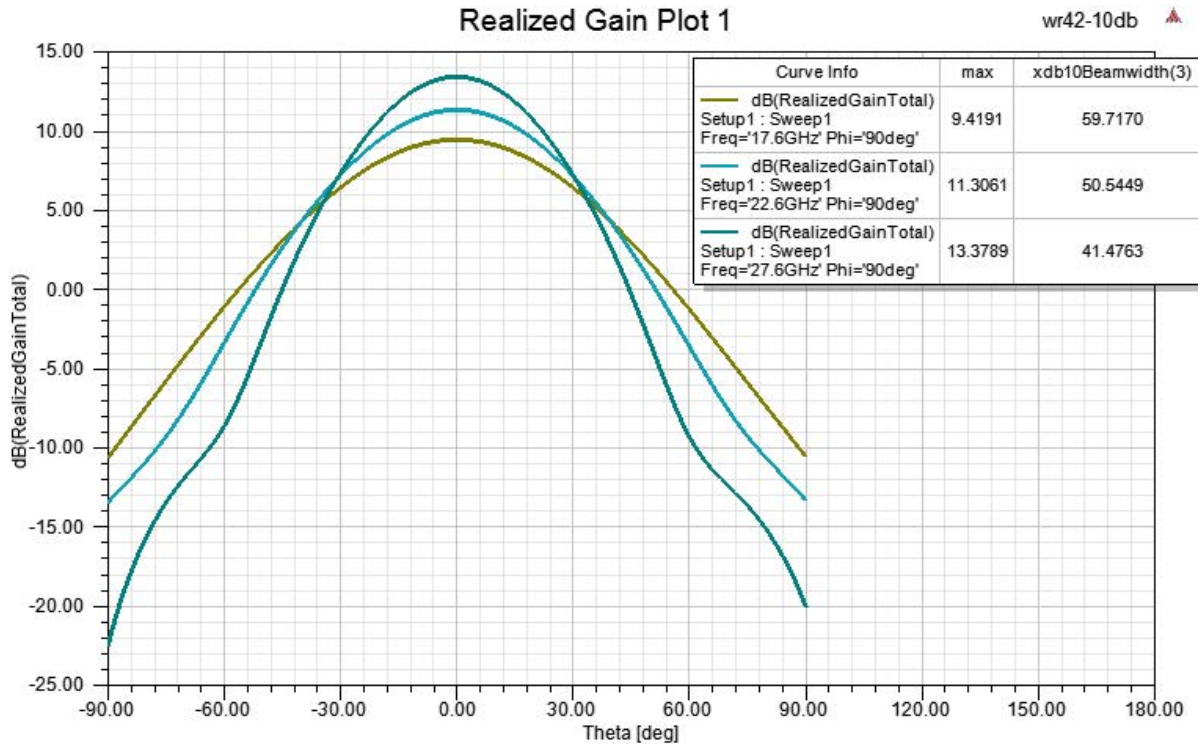




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WR-42 Standard Gain Horn with 10 dBi gain, 2.92mm Female connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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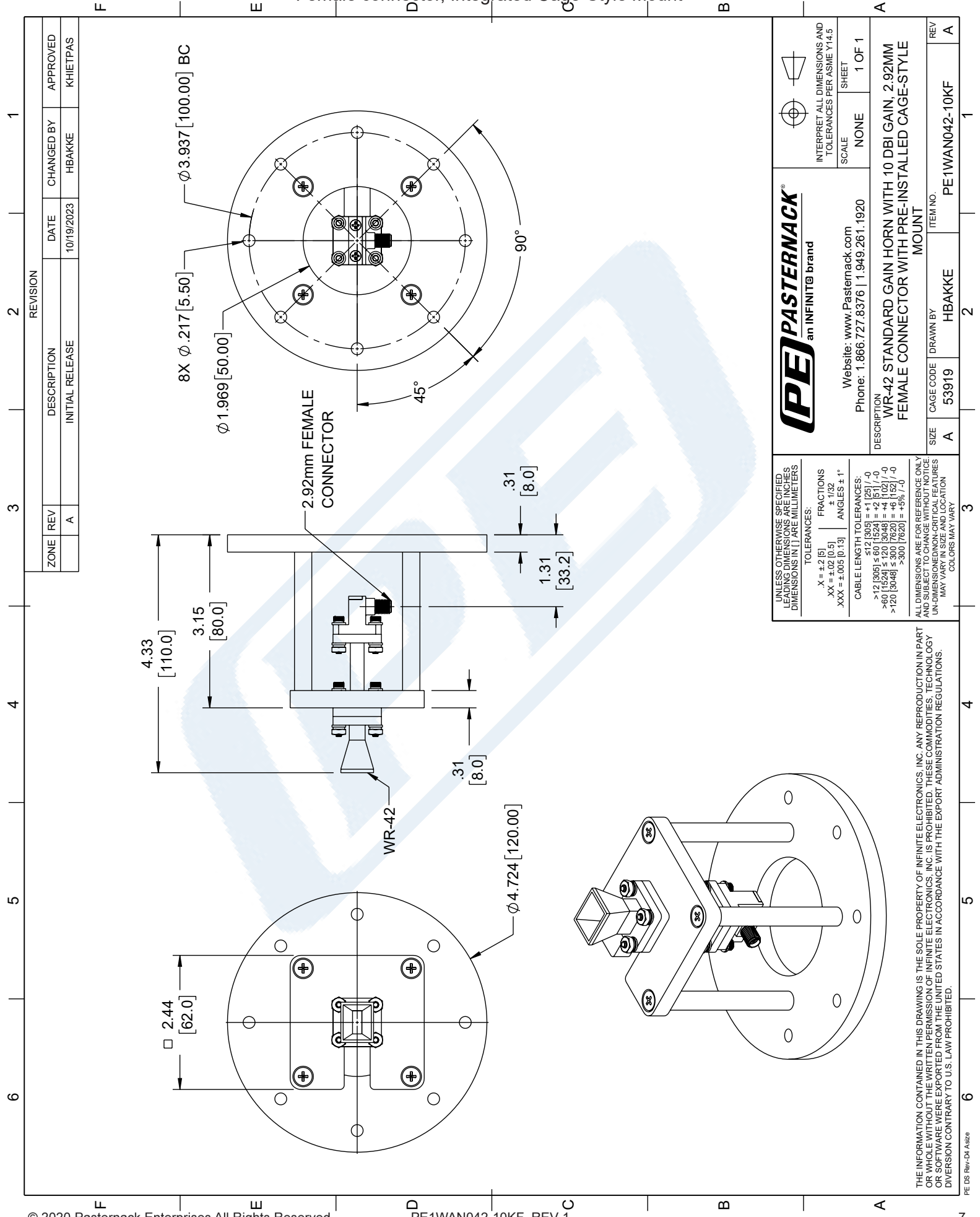
URL: <https://www.pasternack.com/wr-42-standard-gain-horn-with-10-dbi-gain-2.92mm-female-connector-integrated-cage-style-mount-pe1wan042-10kf-p.aspx>

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.

# PE1WAN042-10KF CAD Drawing

WR-42 Standard Gain Horn with 10 dBi gain, 2.92mm

Female connector, Integrated Cage-Style Mount



ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	10/19/2023	HBAKKE	KHIETPAS

REVISION

<p><b>PASTERNAK</b> an INFINIT@ brand</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p>	
<p>Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920</p>		SCALE	NONE
<p>DESCRIPTION WR-42 STANDARD GAIN HORN WITH 10 DBI GAIN, 2.92MM FEMALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE MOUNT</p>		SHEET	1 OF 1
SIZE	A	CAGE CODE	53919
ITEM NO.	PE1WAN042-10KF	DRAWN BY	HBAKKE
REV	A	REV	A

<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.</p>	
TOLERANCES:	
X = ±.2 [5]	FRACTIONS
XX = ±.02 [0.5]	± 1/32
XXX = ±.005 [0.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
>12 [305] ≤ 512 [1298]	± 1/32 / -0
>512 [1298] ≤ 120 [3048]	± 1/16 / -0
>60 [1524] ≤ 120 [3048]	± 1/16 / -0
>120 [3048] ≤ 300 [7620]	± 1/8 / -0
>300 [7620]	± 1/4 / -0

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