

WRD-180 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 18 to 40 GHz



PEWCK1010

Features

- WRD-180 waveguide size
- Frequency range from 18 to 40 GHz
- Precision fabricated and manufactured
- Compatible with standard TRL & SSLT calibration techniques
- Additional waveguide test standards available upon request

Applications

- Test & Measurement
- Lab Equipment Accessories
- Engineering Test and Evaluation
- General Purpose Test and Evaluation

Description

PEWCK1010 is a precision WRD-180 calibration kit assembled to support standard TRL (Thru-Reflect-Line) and SSLT (Short-Short-Load-Thru) calibrations on industry standard vector network analyzers (VNA). The WRD-180 calibration kit comes with two fixed flush waveguide shorts, 1/8 wavelength, 1/4 wavelength and 3/8 wavelength waveguide offsets, one matched waveguide fixed termination and two precision WRD-180 waveguide-to-coax adapters. Additional WRD-180 precision waveguide straight sections are available for purchase separately. Precision waveguide components in PEWCK1010 are designed to work in full WRD-180 band from 18 to 40 GHz. PEWCK1010 is one of the many calibration kits and T&M components which are readily available in stock and for same-day shipment at Pasternack.

Configuration

Waveguide Size	WRD-180
Connector	2.92mm
Frequency Range	18 to 40 GHz

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WRD-180 Calibration Kit Components

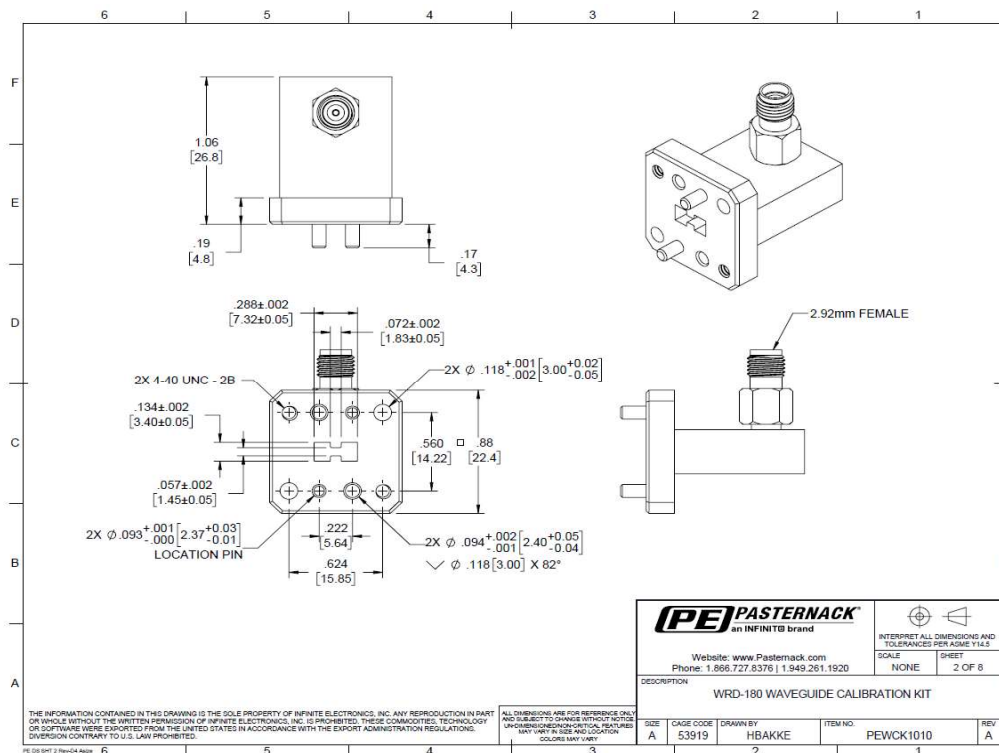
Components	Frequency (GHz)	Quantity
WRD-180 Waveguide to Coax Adapter with N-Type Female Connector	18 to 40 GHz	1
WRD-180 Waveguide to Coax Adapter with N-Type Male Connector	18 to 40 GHz	1
WRD-180 Waveguide Termination	18 to 40 GHz	1
WRD-180 Waveguide Short	18 to 40 GHz	1
WRD-180 Waveguide Offset $1/8\lambda$ Section	18 to 40 GHz	1
WRD-180 Waveguide Offset $1/4\lambda$ Section	18 to 40 GHz	1
Washer 3 (GB/T 97.1-2002)	N/A	20
Washer 3 (GB/T 93-1987)	N/A	20
Screws	N/A	8
Screws	N/A	4
Screws	N/A	8

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WRD-180 Waveguide to Coax Adapter with N-Type Female Connector



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
VSWR			1.6:1	
Insertion Loss			0.5	dB

Mechanical Specifications

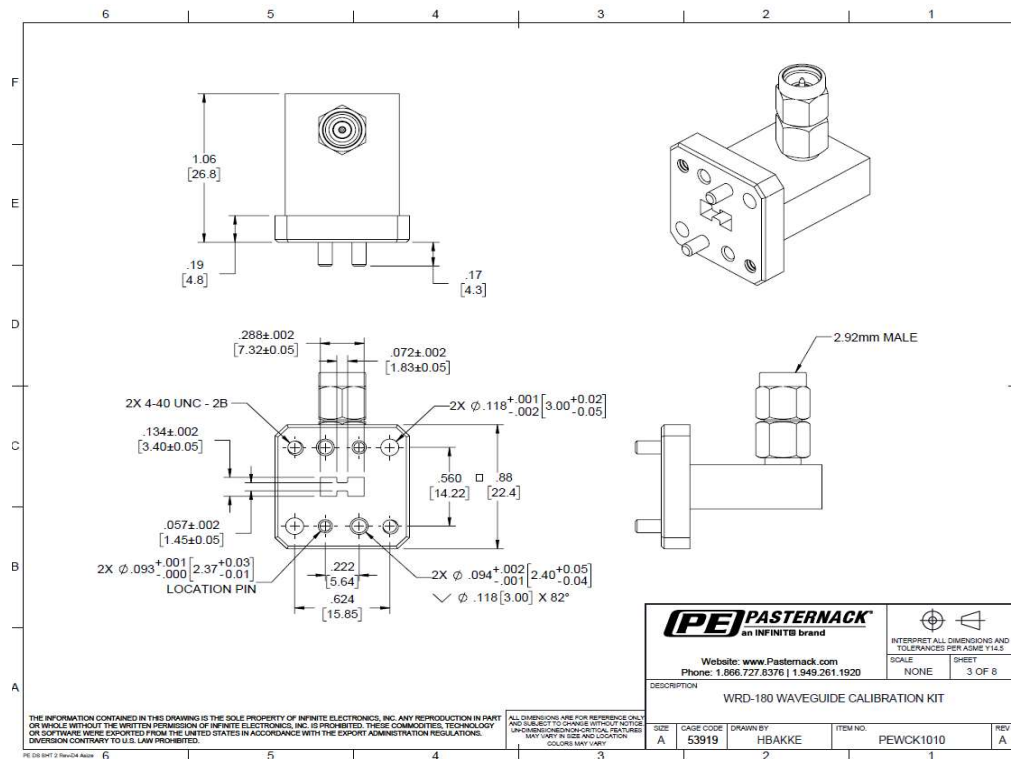
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
RF Connector Type and Gender	2.92mm Female	
Body	Right Angle	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions	1.06 [26.8 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide to Coax Adapter with N-Type Male Connector



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
VSWR			1.8:1	
Insertion Loss			0.5	dB

Mechanical Specifications

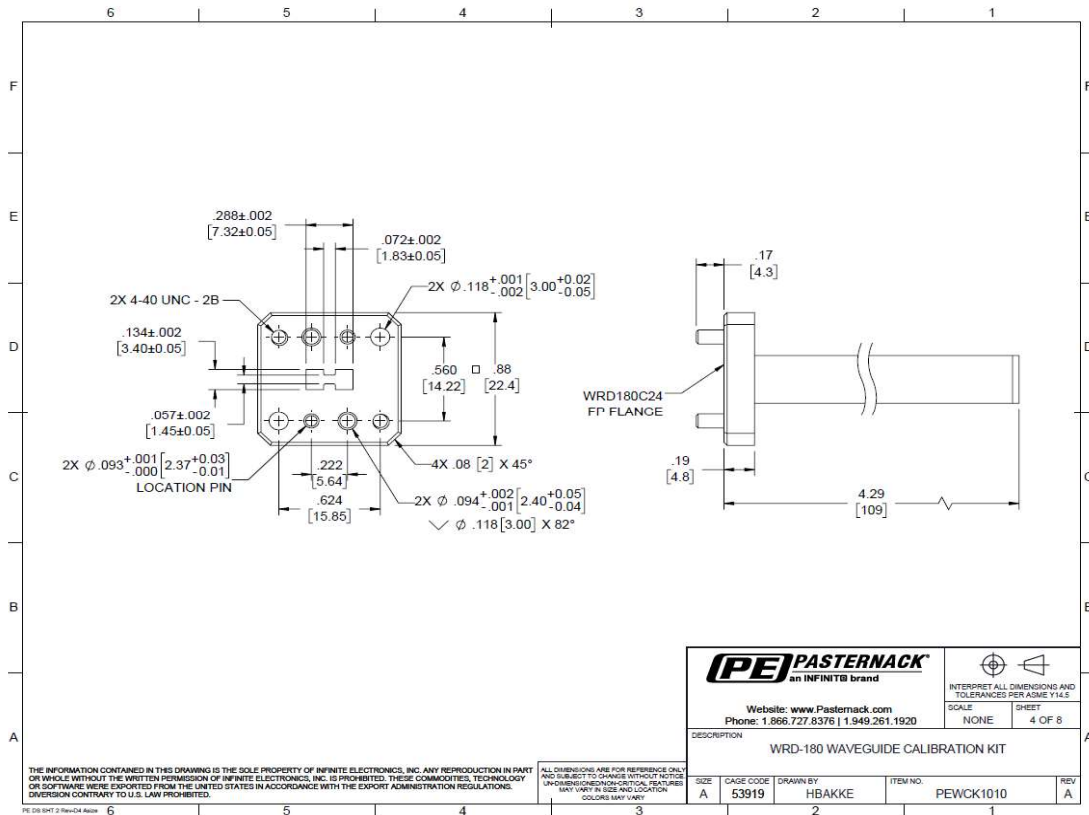
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
RF Connector Type and Gender	2.92mm Male	
Body	Right Angle	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions	1.06 [26.8 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide Termination



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
VSWR			1.1:1	

Mechanical Specifications

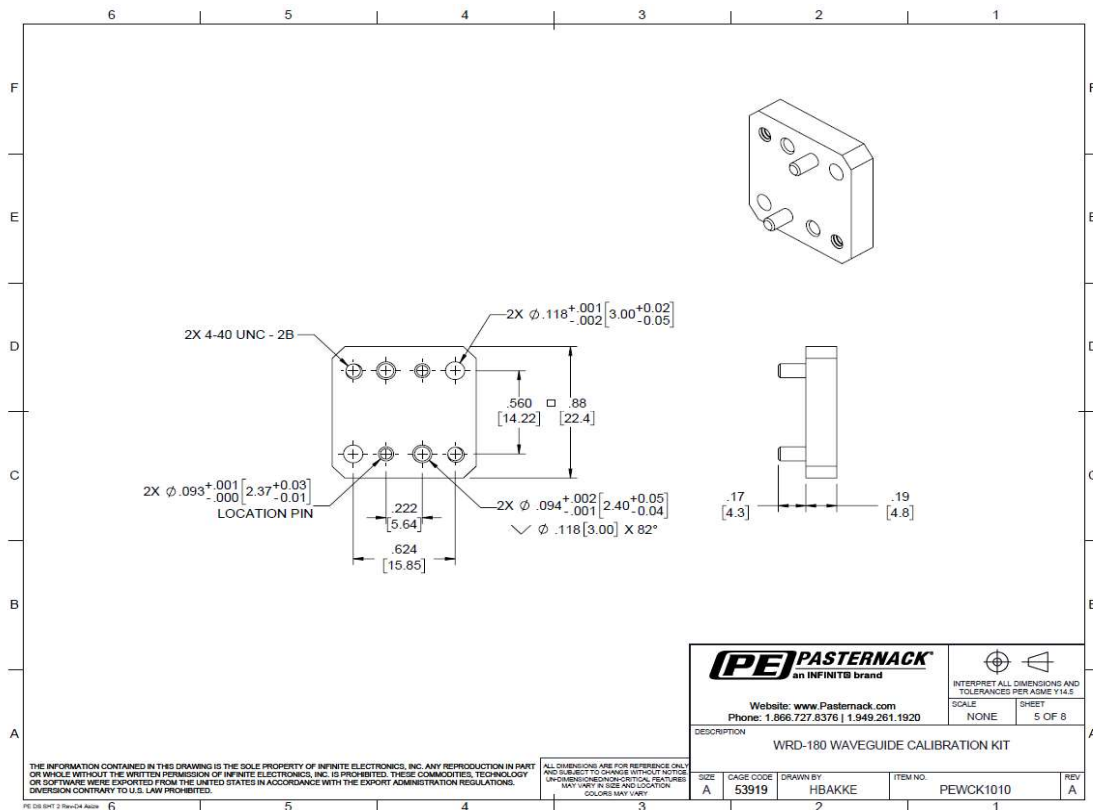
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions	4.29 [109 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide Short



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
VSWR	60:1			

Mechanical Specifications

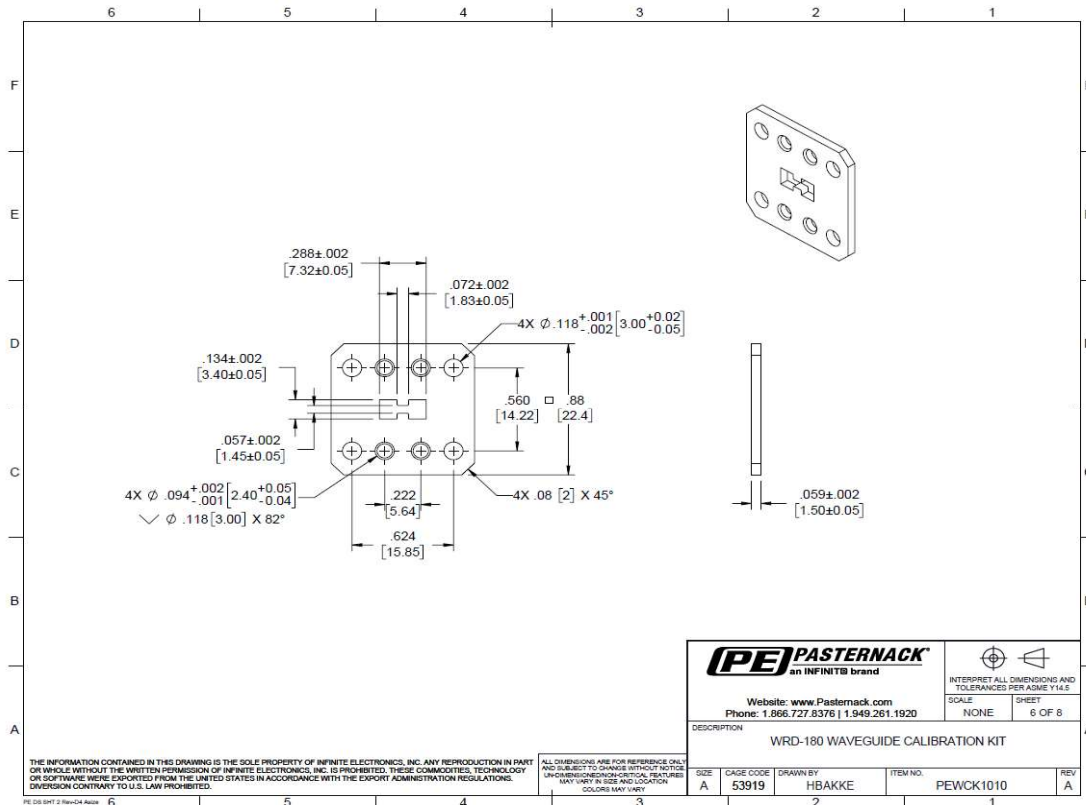
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions	0.19 [4.8 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide Offsets (1/8λ Section)



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz

Mechanical Specifications

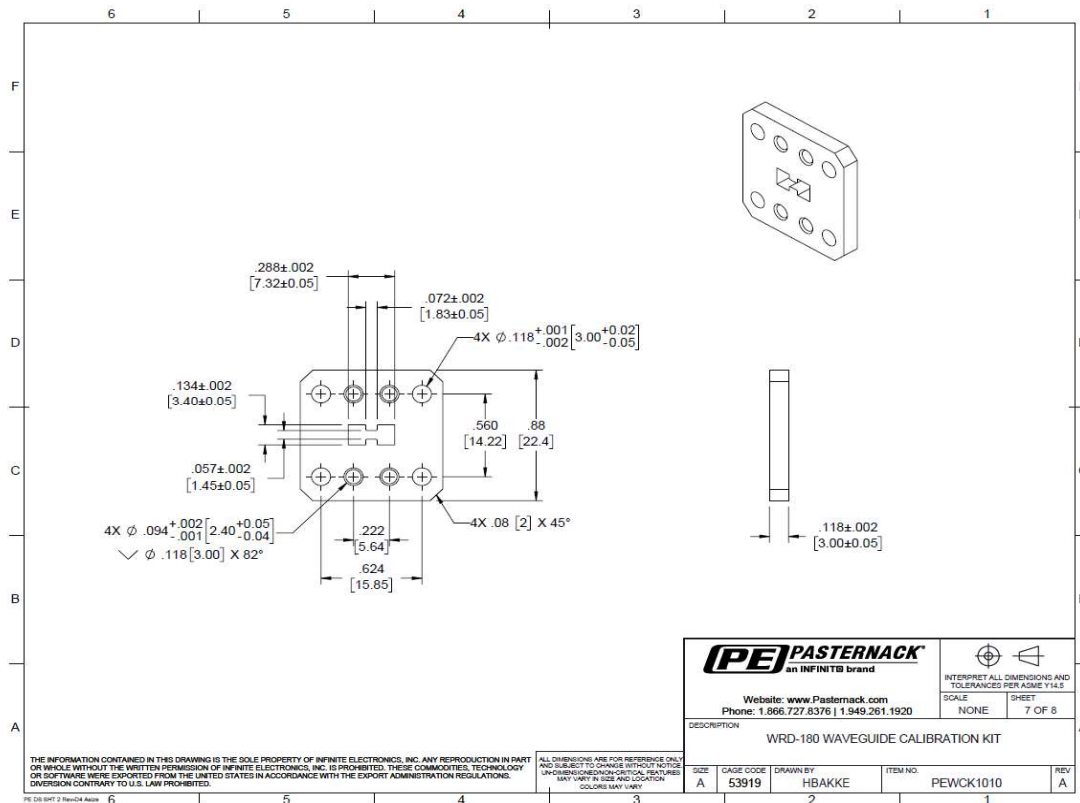
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
Wavelength Offset	1/8λ Section	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions (L, H, W)	0.59 [15 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide Offsets (1/4λ Section)



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz

Mechanical Specifications

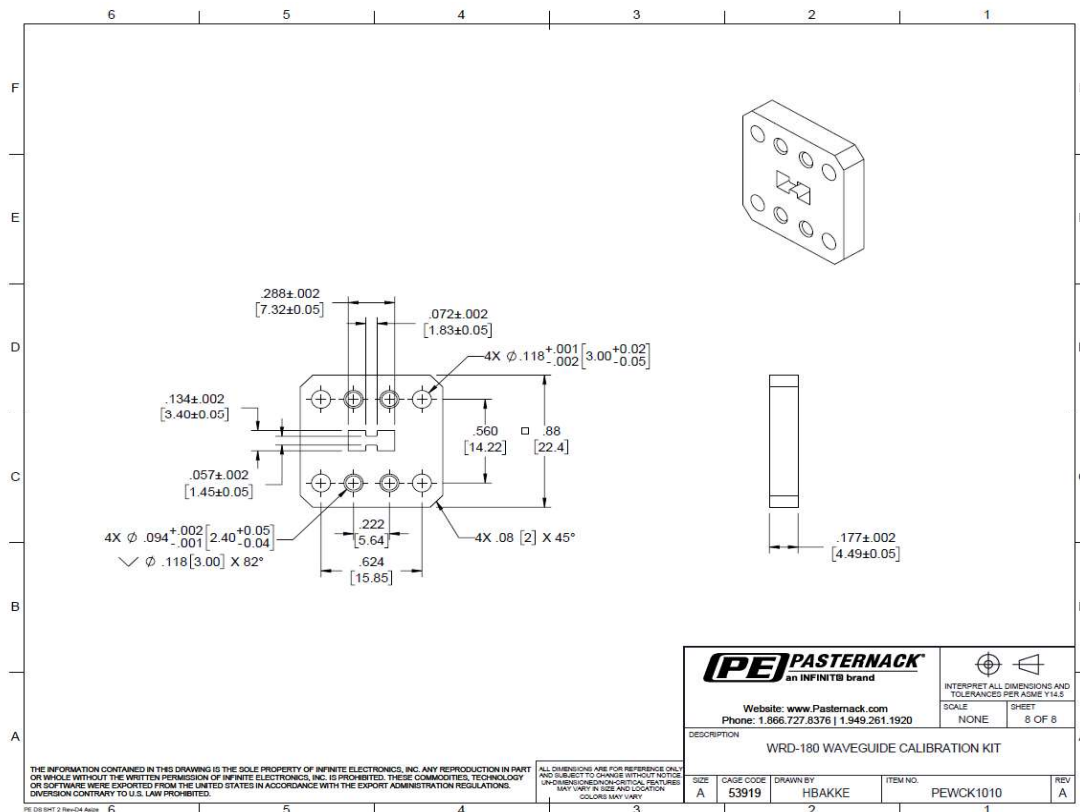
Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
Wavelength Offset	1/4λ Section	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions (L, H, W)	0.12 [3 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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WRD-180 Waveguide Offsets (3/8λ Section)



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz

Mechanical Specifications

Item	Description	Units
Waveguide Size	WRD-180	
Flange Type	Rectangular Cover	
Wavelength Offset	3/8λ Section	
Body Material and Plating	Brass, Silver Plating	
Housing	Black Paint	
Dimensions (L, H, W)	0.18 [4.49 mm] L, 0.88 [22.4 mm] H, 0.88 [22.4 mm] W	inches

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

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

WRD-180 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 18 to 40 GHz 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: [WRD-180 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 18 to 40 GHz PEWCK1010](#)

URL: <https://www.pasternack.com/wrd-180-adapter-short-load-offset-40-ghz-pewck1010-p.aspx-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PEWCK1010 CAD Drawing
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