



WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz

TECHNICAL DATA SHEET

PEWCK1006

PEWCK1006 is a precision WR-22 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 WR-22 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 WR-22 waveguide-to-coax adapters. Additional WR-22 precision waveguide straight sections are available for purchase separately. Precision waveguide components in PEWCK1006 are designed to work in full WR-22 band from 33 to 50 GHz. PEWCK1006 is one of the many calibration kits and T&M components which are readily available in stock and for same-day shipment at Pasternack.

Features

- WR-22 waveguide size
- Frequency range from 33 to 50 GHz
- Precision fabricated and manufactured
- Compatible with standard TRL & SSLT calibration techniques
- Additional waveguide test standards available upon request

Configuration

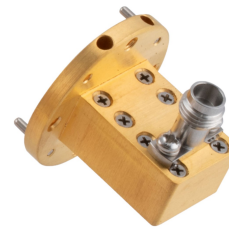
Waveguide Size
Connector
Frequency Range

WR-22
2.4mm
33 to 50 GHz

WR-22 Calibration Kit Components

Components	Frequency (GHz)	Quantity
WR-22 Waveguide to Coax Adapter with 2.4mm Female Connector	33 to 50 GHz	1
WR-22 Waveguide to Coax Adapter with 2.4mm Male Connector	33 to 50 GHz	1
WR-22 Waveguide Termination	33 to 50 GHz	1
WR-22 Waveguide Short	33 to 50 GHz	2
WR-22 Waveguide Offsets (1/8λ Section, 1/4λ Section, 3/8λ Section)	33 to 50 GHz	3

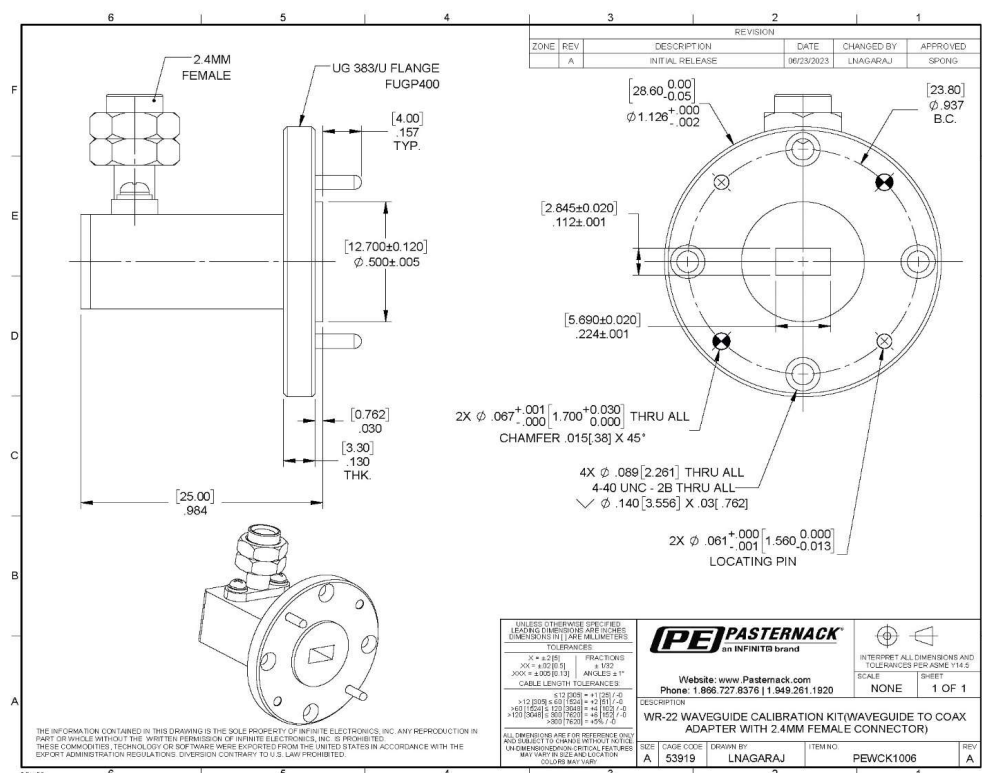
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz PEWCK1006](#)



TECHNICAL DATA SHEET

PEWCK1006

WR-22 Waveguide to Coax Adapter with 2.4mm Female Connector



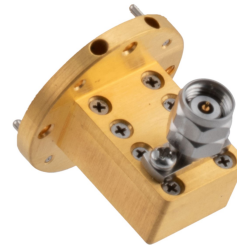
Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz
VSWR			1.25:1	
Insertion Loss			0.35	dB

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-22	
Flange Type	UG-383/U	
RF Connector Type and Gender	2.4mm Female	
Body	Right Angle	
Body Material and Plating	Copper, Gold plated	
Dimensions	0.984 [25 mm] L, 1.04 [26.5 mm] H, 1.13 [28.6 mm] W	inches

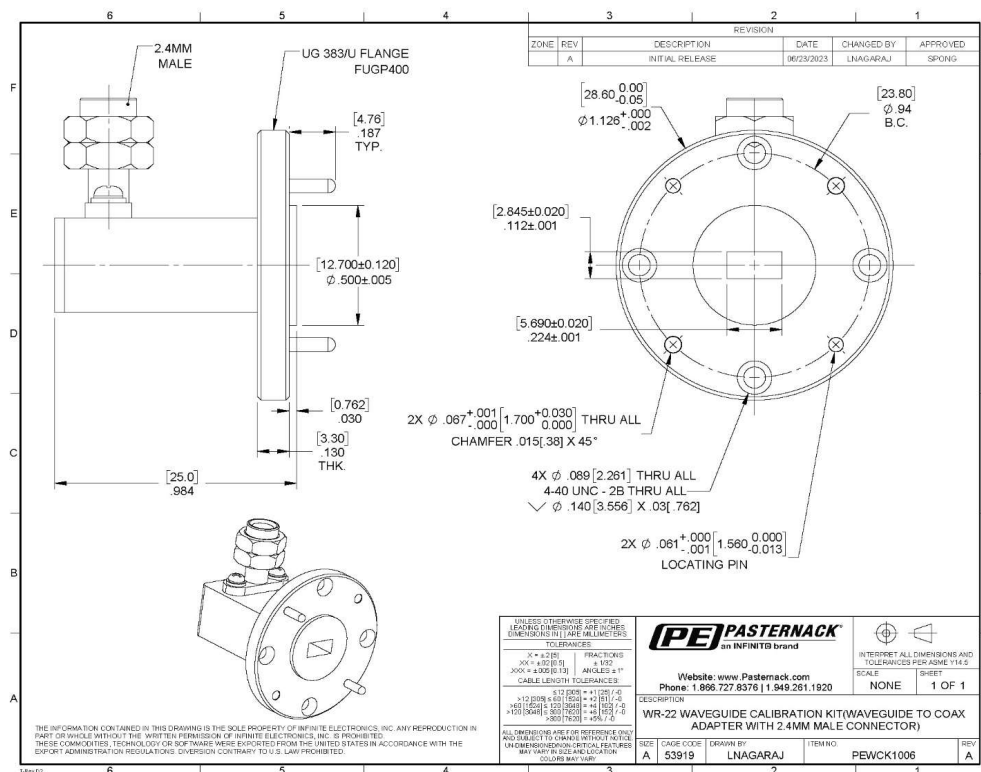
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz PEWCK1006](#)



TECHNICAL DATA SHEET

PEWCK1006

WR-22 Waveguide to Coax Adapter with 2.4mm Male Connector



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz
VSWR			1.25:1	
Insertion Loss			0.35	dB

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-22	
Flange Type	UG-383/U	
RF Connector Type and Gender	2.4mm Male	
Body	Right Angle	
Body Material and Plating	Copper, Gold plated	
Dimensions	0.984 [25 mm] L, 1.25 [31.65 mm] H, 1.13 [28.6 mm] W	inches

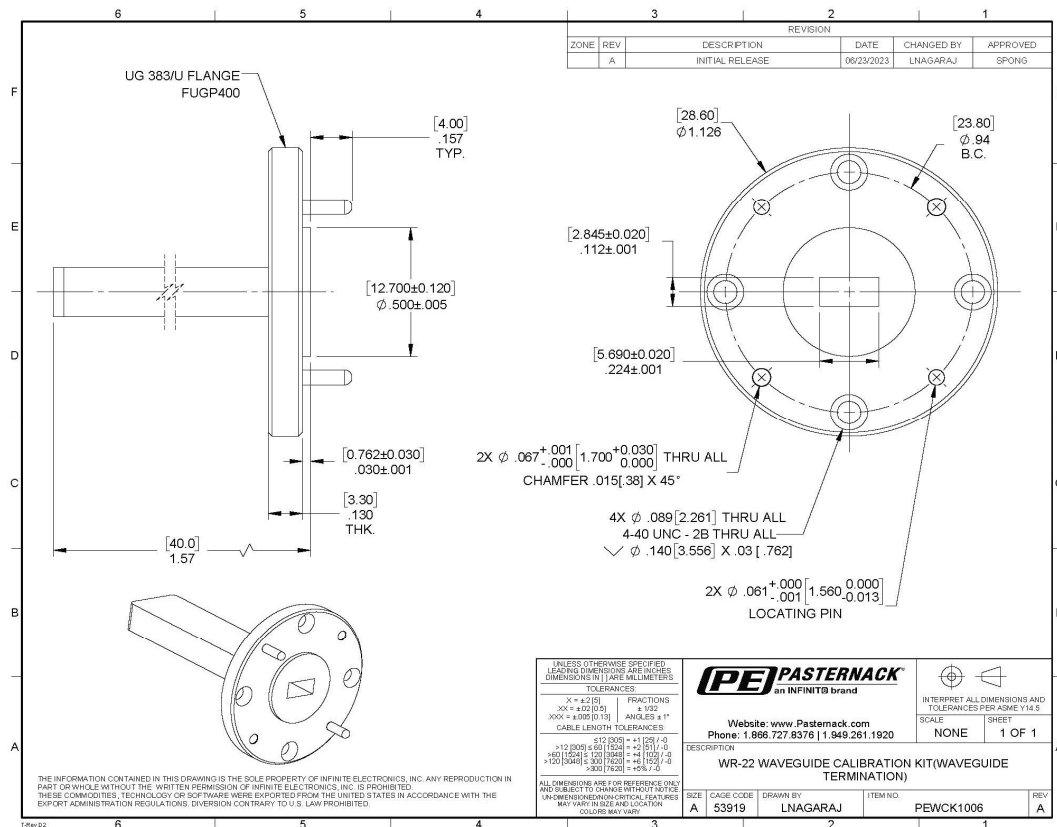
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TECHNICAL DATA SHEET

PEWCK1006

WR-22 Waveguide Termination



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz
VSWR			1.15:1	

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-22	
Flange Type	UG-383/U	
Body Material and Plating	Copper, Gold plated	
Dimensions	1.57 [40 mm] L, 1.13 [28.6 mm] H, 1.13 [28.6 mm] W	inches

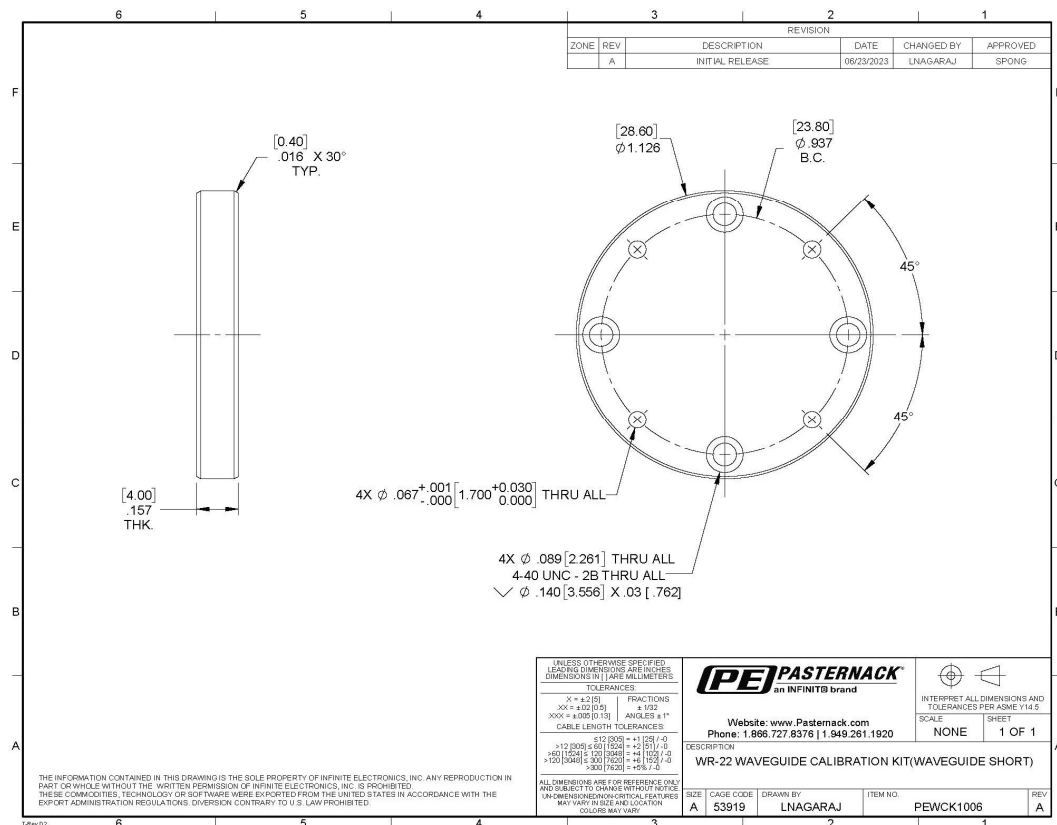
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TECHNICAL DATA SHEET

PEWCK1006

WR-22 Waveguide Short



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz
VSWR	60:1			

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-22	
Flange Type	UG-383/U	
Body Material and Plating	Copper, Gold plated	
Dimensions	0.157 [4 mm] L, 1.13 [28.6 mm] H, 1.13 [28.6 mm] W	inches

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz PEWCK1006](#)

PEWCK1006

6 3 2 1

ZONE REV DESCRIPTION DATE CHANGED BY APPROVED
A INITIAL RELEASE 06/23/2023 LNAGARAJ SPONG

[0.40]
.016 X 30°
TYP.

[28.60]
Ø 1.126

[23.80]
Ø .937
B.C.

[2.845±0.010]
.1124±.000

[5.690±0.010]
.224±.000

4X Ø .067^{+0.001}_{-.000} [1.700^{+0.030}_{0.000}] THRU ALL

4X Ø .118 [3.00] THRU ALL

45°

45°

X

Wavelength Offset	3/8λ Section	1/4λ Section	1/8λ Section
X	.138 [3.51]	.092 [2.34]	.046 [1.17]
Qty	1	1	1

UNLESS OTHERWISE SPECIFIED:
LEADING DIMENSIONS ONLY (INCHES)
(DIMENSIONS IN [] ARE MILLIMETERS)

TOLERANCES:

X = ±.18 FRACTIONS
XX = ±.02 [51] ±.132
XXX = ±.05 [1.27] ANGLES ± 1°

CABLE LENGTH TOLERANCES:

±.02 (203) ±.01 (25.4) ±.01 (2.54)
±.01 (25.4) ±.01 (25.4) ±.01 (2.54)
±.01 (25.4) ±.01 (25.4) ±.01 (2.54)

ALL DIMENSIONS ARE OF REFERENCE UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE OF REFERENCE UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE OF REFERENCE UNLESS OTHERWISE SPECIFIED

PE PASTERNAK
an INFINITUM brand

Interpret ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE 1 OF 1

DESCRIPTION: WR-22 WAVEGUIDE CALIBRATION KIT (WAVEGUIDE OFFSETS)

SIZE: 53919 DRAWN BY: LNAGARAJ ITEM NO.: PEWCK1006 REV: A

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Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz

Item	Description			Units
Waveguide Size	WR-22			
Flange Type	UG-383/U			
Wavelength Offset	1/8λ Section, 1/4λ Section, 3/8λ Section			
Body Material and Plating	Copper, Gold plated			
Length	1/8λ Section	1/4λ Section	3/8λ Section	
	0.046 [1.17 mm]	0.92 [2.34 mm]	0.138 [3.51 mm]	inches
Dimensions (H, W)	1.13 [28.6 mm] H, 1.13 [28.6 mm] W			inches

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TECHNICAL DATA SHEET**PEWCK1006**

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

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-22 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 33 to 50 GHz PEWCK1006](#)

URL: <https://www.pasternack.com/wr-22-adapter-short-load-offset-50-ghz-pewck1006-p.aspx-p.aspx>

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