



WR-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz

TECHNICAL DATA SHEET

PEWCK1004

PEWCK1004 is a precision WR-34 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-34 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-34 waveguide-to-coax adapters. Additional WR-34 precision waveguide straight sections are available for purchase separately. Precision waveguide components in PEWCK1004 are designed to work in full WR-34 band from 21.7 to 33GHz. PEWCK1004 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-34 waveguide size
- Frequency range from 21.7 to 33 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-34
2.92mm
21.7 to 33 GHz

WR-34 Calibration Kit Components

Components	Frequency (GHz)	Quantity
WR-34 Waveguide to Coax Adapter with 2.92mm Female Connector	21.7 to 33 GHz	1
WR-34 Waveguide to Coax Adapter with 2.92mm Male Connector	21.7 to 33 GHz	1
WR-34 Waveguide Termination	21.7 to 33 GHz	1
WR-34 Waveguide Short	21.7 to 33 GHz	2
WR-34 Waveguide Offsets (1/8λ Section, 1/4λ Section, 3/8λ Section)	21.7 to 33 GHz	3

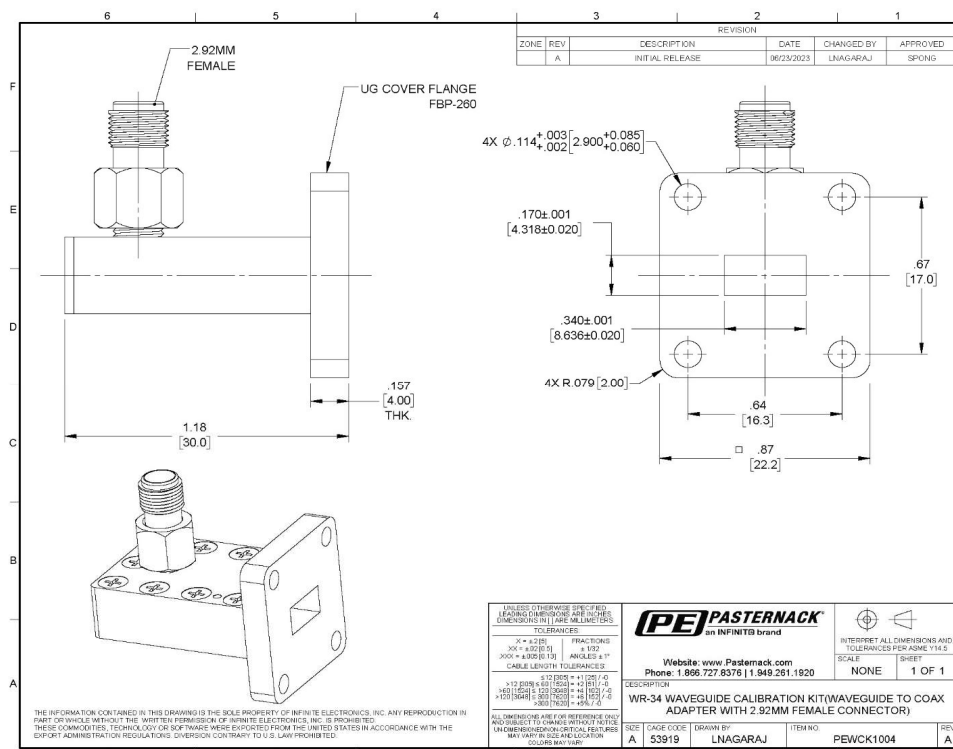
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)



TECHNICAL DATA SHEET

PEWCK1004

WR-34 Waveguide to Coax Adapter with 2.92mm Female Connector



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	21.7		33	GHz
VSWR			1.2:1	
Insertion Loss			0.3	dB

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-34	
Flange Type	UG Square Cover	
RF Connector Type and Gender	2.92mm Female	
Body	Right Angle	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	1.18 [30 mm] L, 1.18 [29.95 mm] H, 0.87 [22.2 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-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)

PEWCK1004

6
4
2
1

2.92MM MALE

UG COVER FLANGE
FBP-260

4X $\phi .114^{+0.003}_{-0.002}$ $2.900^{+0.085}_{-0.060}$

$.170 \pm .001$
[4.318 ± 0.020]

$.340 \pm .001$
[8.636 ± 0.020]

4X R.079 [2.00]

$.67$
[17.0]

$.64$
[16.3]

$.87$
[22.2]

$.157$
[4.00] THK.

1.18
[30.0]

ZONE		REV	DESCRIPTION	REVISION	DATE	CHANGED BY	APPROVED
		A	INITIAL RELEASE		06/23/2023	LNAGARAJ	SPONG
<p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TOLERANCES PER ASME Y14.5</p> <p>FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 24, 30, 36, 40, 48, 60, 72, 96, 120, 144, 180, 216, 240, 288, 360, 432, 576, 720, 864, 1080, 1296, 1600, 2048, 2592, 3200, 4096, 5184, 6553, 8192, 10368, 13107, 16777, 21499, 27648, 35436, 45273, 58022, 74323, 95456, 122980, 158208, 203212, 260184, 334464, 430016, 554496, 714304, 917824, 1187904, 1547776, 2000000, 2595200, 3372800, 4368000, 5690240, 7377280, 9593856, 12499200, 16343040, 21218880, 27648000, 35952000, 46784000, 60672000, 79424000, 103680000, 135936000, 177280000, 231936000, 301680000, 394752000, 514880000, 671488000, 875280000, 1140000000, 1488000000, 1947520000, 2559360000, 3360000000, 4396800000, 5808000000, 7644800000, 10000000000, 13190400000, 17328000000, 22704000000, 29856000000, 39475200000, 51840000000, 68400000000, 90000000000, 118720000000, 156864000000, 207360000000, 274560000000, 362880000000, 477440000000, 627200000000, 832000000000, 1094400000000, 1439040000000, 1892800000000, 2496000000000, 3302400000000, 4368000000000, 5776000000000, 7600000000000, 10000000000000, 13200000000000, 17376000000000, 22896000000000, 30432000000000, 40000000000000, 52800000000000, 70080000000000, 92160000000000, 120960000000000, 159360000000000, 210240000000000, 277440000000000, 365760000000000, 484800000000000, 640000000000000, 844800000000000, 1115520000000000, 1479360000000000, 1972800000000000, 2630400000000000, 3480000000000000, 4588800000000000, 6096000000000000, 8102400000000000, 10720000000000000, 14112000000000000, 18528000000000000, 24384000000000000, 32256000000000000, 42528000000000000, 56640000000000000, 75264000000000000, 100000000000000000, 132000000000000000, 173760000000000000, 228960000000000000, 304320000000000000, 400000000000000000, 528000000000000000, 700800000000000000, 921600000000000000, 1209600000000000000, 1593600000000000000, 2102400000000000000, 2774400000000000000, 3657600000000000000, 4848000000000000000, 6400000000000000000, 8448000000000000000, 11155200000000000000, 14793600000000000000, 19728000000000000000, 26304000000000000000, 34800000000000000000, 45888000000000000000, 60960000000000000000, 81024000000000000000, 107200000000000000000, 141120000000000000000, 185280000000000000000, 243840000000000000000, 322560000000000000000, 425280000000000000000, 566400000000000000000, 752640000000000000000, 1000000000000000000000, 1320000000000000000000, 1737600000000000000000, 2289600000000000000000, 3043200000000000000000, 4000000000000000000000, 5280000000000000000000, 7008000000000000000000, 9216000000000000000000, 12096000000000000000000, 15936000000000000000000, 21024000000000000000000, 27744000000000000000000, 36576000000000000000000, 48480000000000000000000, 64000000000000000000000, 84480000000000000000000, 111552000000000000000000, 147936000000000000000000, 197280000000000000000000, 263040000000000000000000, 348000000000000000000000, 458880000000000000000000, 609600000000000000000000, 810240000000000000000000, 1072000000000000000000000, 1411200000000000000000000, 1852800000000000000000000, 2438400000000000000000000, 3225600000000000000000000, 4252800000000000000000000, 5664000000000000000000000, 7526400000000000000000000, 10000000000000000000000000, 13200000000000000000000000, 17376000000000000000000000, 22896000000000000000000000, 30432000000000000000000000, 400000</p>							

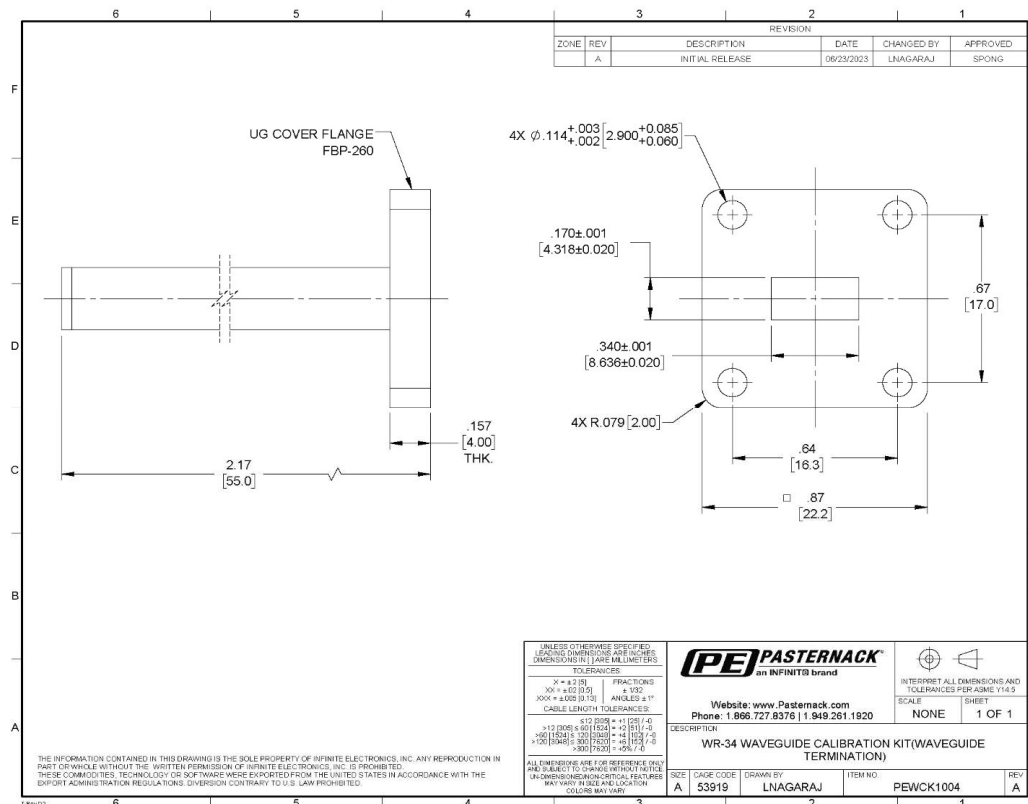
Description	Minimum	Typical	Maximum	Units
Frequency Range	21.7		33	GHz
VSWR			1.2:1	
Insertion Loss			0.3	dB

Item	Description	Units
Waveguide Size	WR-34	
Flange Type	UG Square Cover	
RF Connector Type and Gender	2.92mm Male	
Body	Right Angle	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	1.18 [30 mm] L, 1.24 [31.4 mm] H, 0.87 [22.2 mm] W	inches

3

PEWCK1004

WR-34 Waveguide Termination



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	21.7		33	GHz
VSWR			1.03:1	

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-34	
Flange Type	UG Square Cover	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	2.17 [55 mm] L, 0.87 [22.2 mm] H, 0.87 [22.2 mm] W	inches

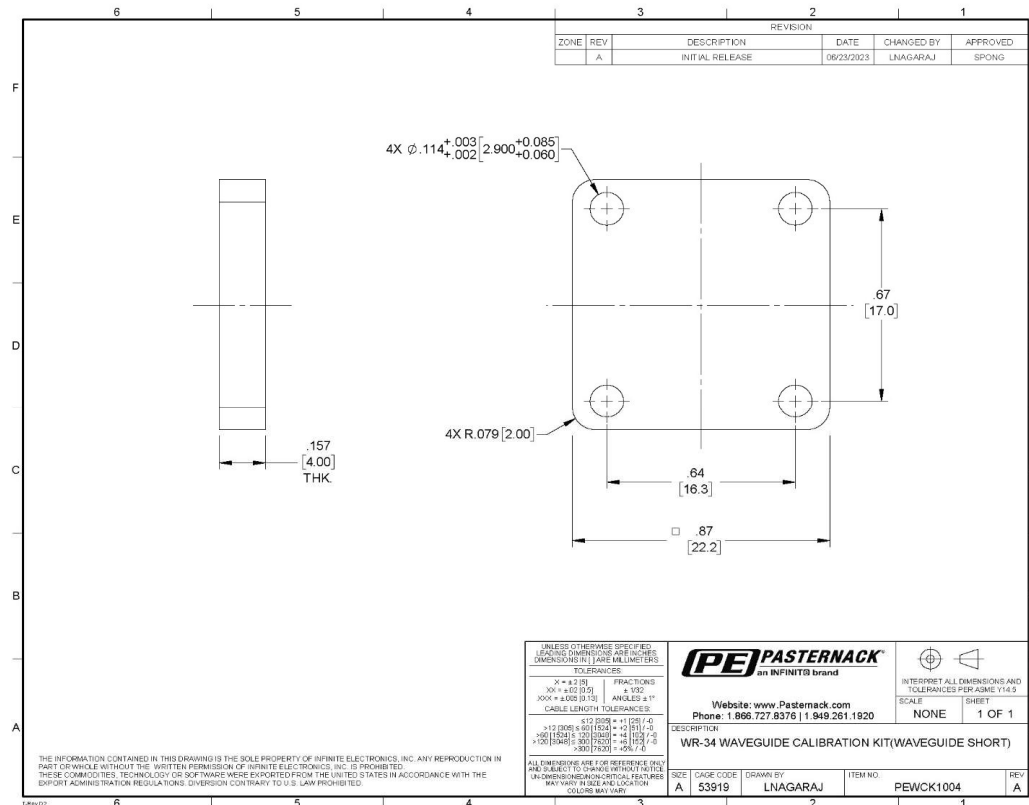
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)



TECHNICAL DATA SHEET

PEWCK1004

WR-34 Waveguide Short



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	21.7		33	GHz
VSWR	60:1			

Mechanical Specifications

Item	Description	Units
Waveguide Size	WR-34	
Flange Type	UG Square Cover	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	0.157 [4 mm] L, 0.87 [22.2 mm] H, 0.87 [22.2 mm] W	inches

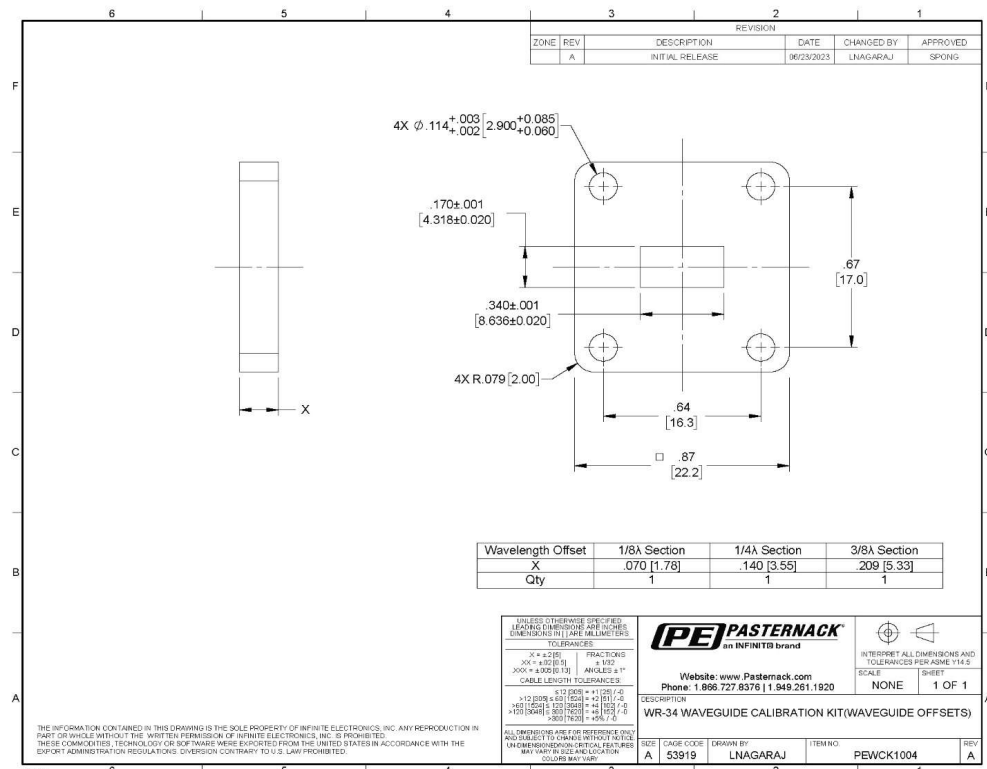
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)



TECHNICAL DATA SHEET

PEWCK1004

WR-34 Waveguide Offsets (1/8λ Section, 1/4λ Section, 3/8λ Section)



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	21.7		33	GHz

Mechanical Specifications

Item	Description			Units
Waveguide Size	WR-34			
Flange Type	UG Square Cover			
Wavelength Offset	1/8λ Section, 1/4λ Section, 3/8λ Section			
Body Material and Plating	Copper, Silver plated			
Housing	Black Paint			
Length	1/8λ Section	1/4λ Section	3/8λ Section	
	0.07 [1.78 mm]	0.14 [3.55 mm]	0.209 [5.33 mm]	inches
Dimensions (H, W)	0.87 [22.2 mm] H, 0.87 [22.2 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-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)

TECHNICAL DATA SHEET**PEWCK1004**

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

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

WR-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 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-34 Calibration Kit Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components Operating From 21.7 to 33 GHz PEWCK1004](#)

URL: <https://www.pasternack.com/wr-34-adapter-short-load-offset-33-ghz-pewck1004-p.aspx-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.