

## Calibration Kit WR-90 Operating From 8.2 to 12.5 GHz Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components

FMWCK1000 is a precision WR-90 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-90 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-90 waveguide-to-coax adapters. Additional WR-90 precision waveguide straight sections are available for purchase separately. Precision waveguide components in FMWCK1000 are designed to work in full WR-90 band from 8.2 to 12.5 GHz. FMWCK1000 is one of the many calibration kits and T&M components which are readily available in stock and for same-day shipment at Fairview Microwave.

### Configuration

Waveguide Size	WR-90
Connector	N
Frequency Range	8.2 to 12.5 GHz



### Features:

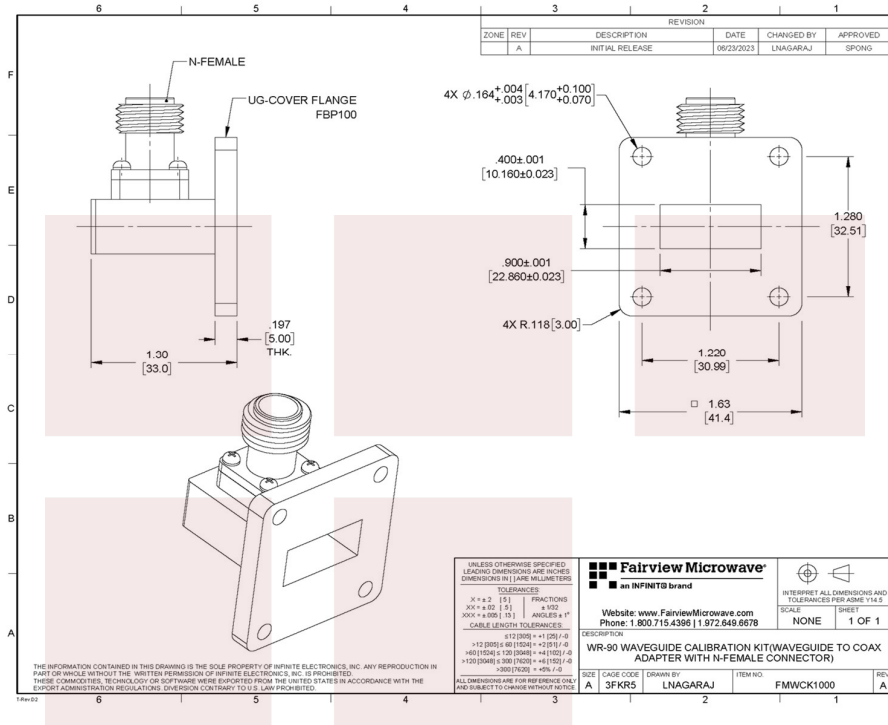
- WR-90 waveguide size
- Frequency range from 8.2 to 12.5 GHz
- Precision fabricated and manufactured
- Compatible with standard TRL & SSLT calibration techniques
- Additional waveguide test standards available upon request

### WR-90 Calibration Kit Components

Components	Frequency (GHz)	Quantity
WR-90 Waveguide to Coax Adapter with N-Type Female Connector	8.2 to 12.4 GHz	1
WR-90 Waveguide to Coax Adapter with N-Type Male Connector	8.2 to 12.4 GHz	1
WR-90 Waveguide Termination	8.2 to 12.4 GHz	1
WR-90 Waveguide Short	8.2 to 12.4 GHz	2
WR-90 Waveguide Offsets (1/8λ Section, 1/4λ Section, 3/8λ Section)	8.2 to 12.4 GHz	3

Fairview Microwave  
 301 Leora Ln., Suite 100  
 Lewisville, TX 75056  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**WR-90 Waveguide to Coax Adapter with N-Type Female Connector**



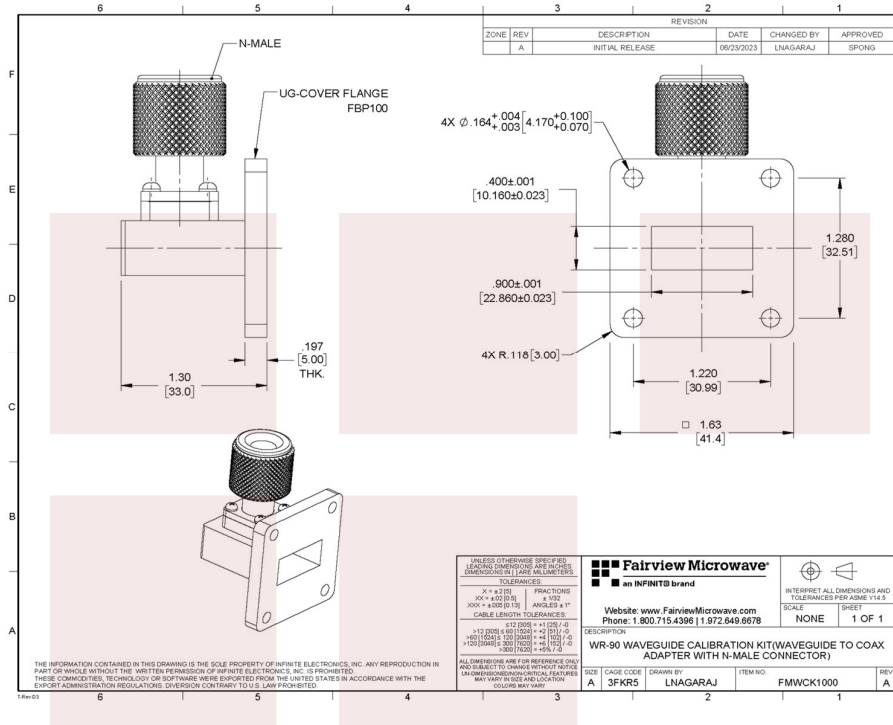
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz
VSWR			1.2:1	
Insertion Loss			0.2	dB

**Mechanical Specifications**

Item	Description	Units
Waveguide Size	WR-90	
Flange Type	UG Square Cover	
RF Connector Type and Gender	N-Type Female	
Body	Right Angle	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	1.3 [33 mm] L, 1.99 [50.6 mm] H, 1.63 [41.4 mm] W	inches

**WR-90 Waveguide to Coax Adapter with N-Type Male Connector**



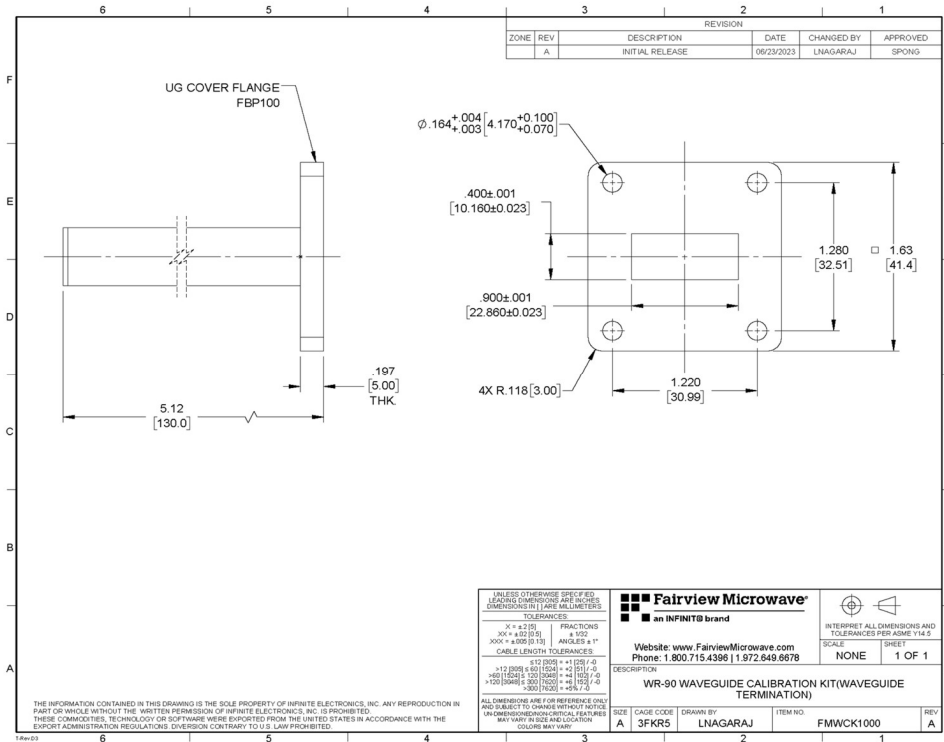
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz
VSWR			1.2:1	
Insertion Loss			0.2	dB

**Mechanical Specifications**

Item	Description	Units
Waveguide Size	WR-90	
Flange Type	UG Square Cover	
RF Connector Type and Gender	N-Type Male	
Body	Right Angle	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	1.3 [33 mm] L, 2.4 [60.8 mm] H, 1.63 [41.4 mm] W	inches

**WR-90 Waveguide Termination**



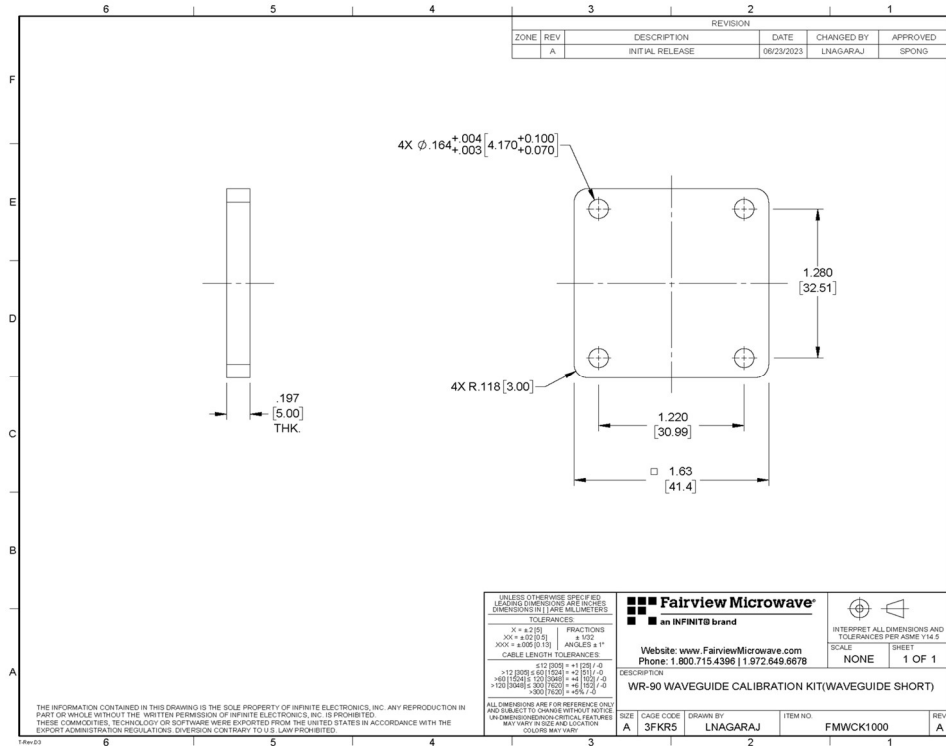
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz
VSWR			1.03:1	

**Mechanical Specifications**

Item	Description	Units
Waveguide Size	WR-90	
Flange Type	UG Square Cover	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	5.12 [130 mm] L, 1.63 [41.4 mm] H, 1.63 [41.4 mm] W	inches

**WR-90 Waveguide Short**



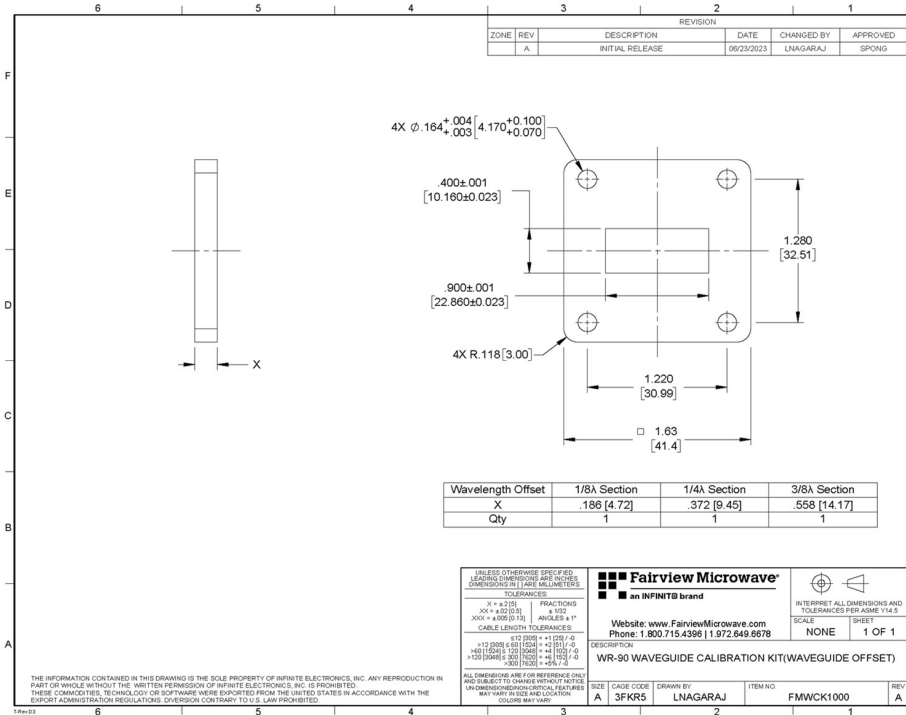
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz
VSWR	60:1			

**Mechanical Specifications**

Item	Description	Units
Waveguide Size	WR-90	
Flange Type	UG Square Cover	
Body Material and Plating	Copper, Silver plated	
Housing	Black Paint	
Dimensions	0.197 [5 mm] L, 1.63 [41.4 mm] H, 1.63 [41.4 mm] W	inches

**WR-90 Waveguide Offsets (1/8λ Section, 1/4λ Section, 3/8λ Section)**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz

**Mechanical Specifications**

Item	Description			Units
Waveguide Size	WR-90			
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	
	0.186 [4.72 mm]	0.372 [9.45 mm]	0.558 [14.17 mm]	inches
Dimensions (H, W)	1.63 [41.4 mm] H, 1.63 [41.4 mm] W			inches

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

**Plotted and Other Data**

Notes:

- Values at 25 °C, sea level

Calibration Kit WR-90 Operating From 8.2 to 12.5 GHz Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components 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: [Calibration Kit WR-90 Operating From 8.2 to 12.5 GHz Including Waveguide to Coax Adapter, Termination, Short, and Offsets Components FMWCK1000](#)

URL: <https://www.fairviewmicrowave.com/wr-90-adapter-short-load-offset-12.5-ghz-fmwck1000-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.

