

**WR-51 Waveguide E-Bend Instrumentation Grade Using UBR180 Flange With a 15 GHz to 22 GHz Frequency Range**

Fairview Microwave carries a wide variety of waveguide bends ranging from WR-12 to WR-137. These waveguide bends include grooved and non-grooved designs. Standard waveguide bends are available in E-Bend and H-Bend configurations. For ease of identification, our commercial grade waveguide bends are painted grey while our instrumentation grade waveguide bends are gold plated. Our instrumentation grade waveguide bends were designed with precision tolerances of  $\pm 0.001''$  and constructed of a high grade oxygen free hard copper to ensure repeatable RF performance.



**Electrical Specifications\***

Description	Min	Typ	Max	Units
Frequency Range	15		22	GHz
VSWR			1.1:1	
Insertion Loss		0.09		dB

\* Values at 25°C, sea level

**Mechanical Specifications**

Waveguide Size	WR-51
Waveguide Design	Instrumentation Grade
<b>Flange 1</b>	
Interface	UBR180
Material	Oxygen Free Hard Copper
Plating	Hard Gold over Copper Flash
<b>Waveguide</b>	
Interface	WR-51
Material	Oxygen Free Hard Copper
Plating	Hard Gold over Copper Flash
<b>Flange 2</b>	
Interface	UBR180
Material	Oxygen Free Hard Copper
Plating	Hard Gold over Copper Flash

**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

**Plotted and Other Data**

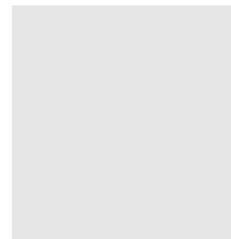
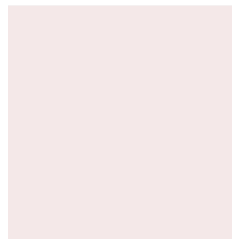
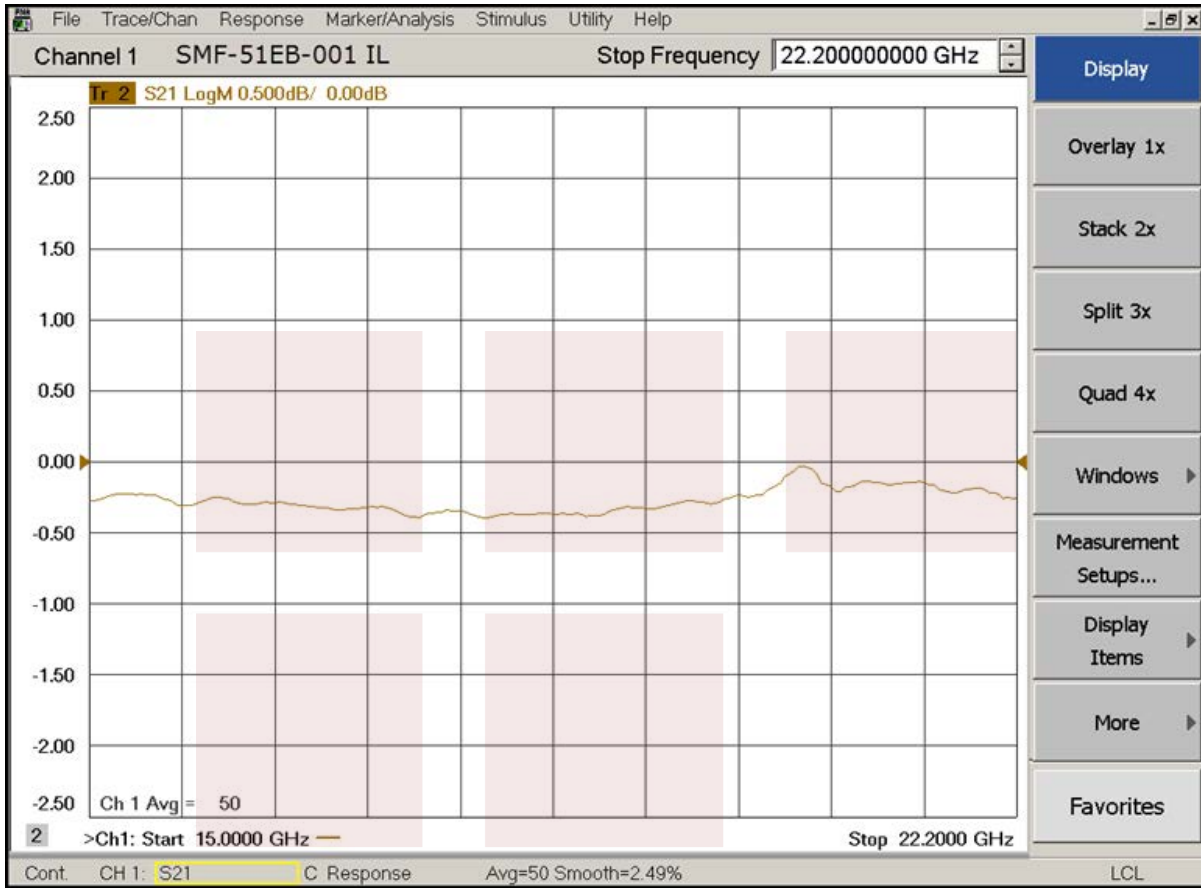
- Notes:
- Values at 25 °C, sea level

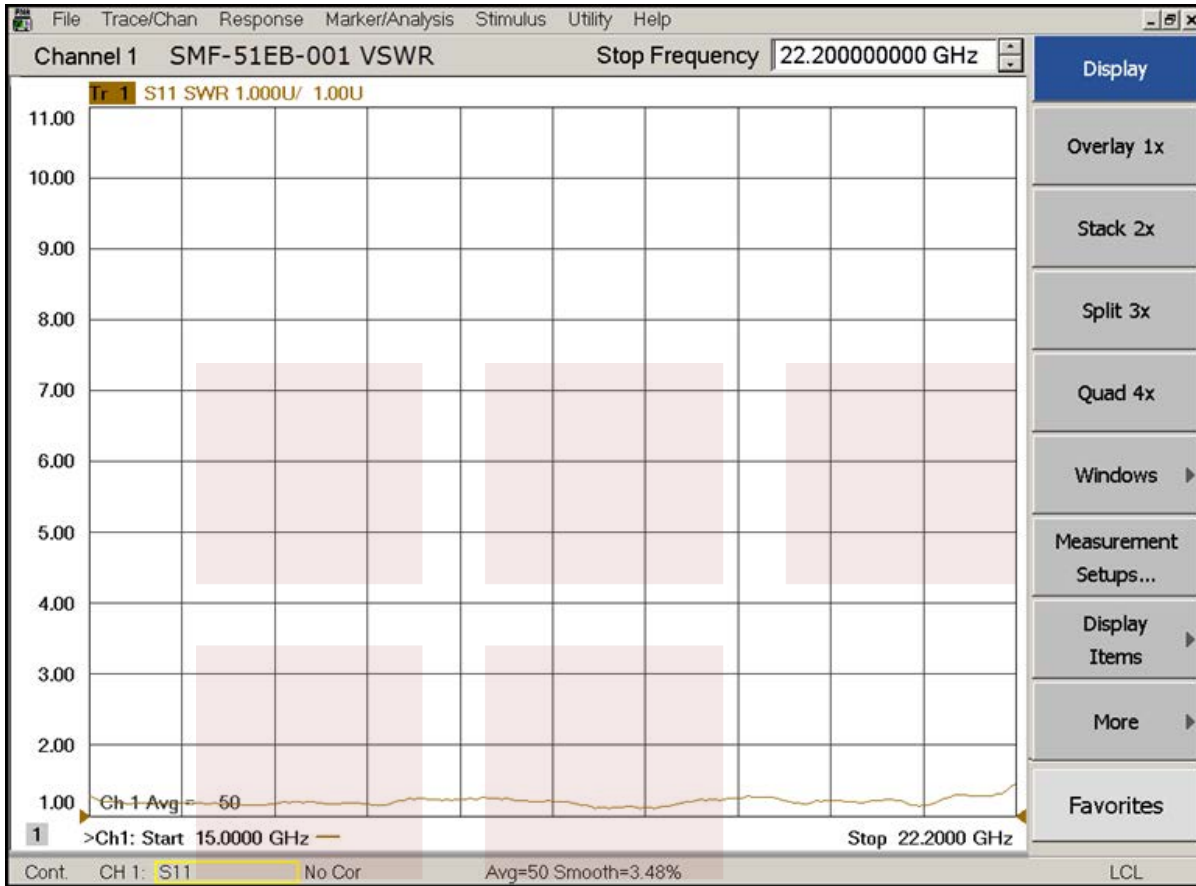
**Features:**

- Commercial grade and instrumentation grade sections and bends covering frequency ranges from 5.8 GHz to 90 GHz
- Wide variety of flange types, including grooved and non-grooved designs.
- Precision waveguide mechanical tolerances of  $\pm 0.001''$
- Comprehensive waveguide offering also includes Bends, Filters, Terminations, and Waveguide to Coaxial Adapters.

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**Typical Performance Data**



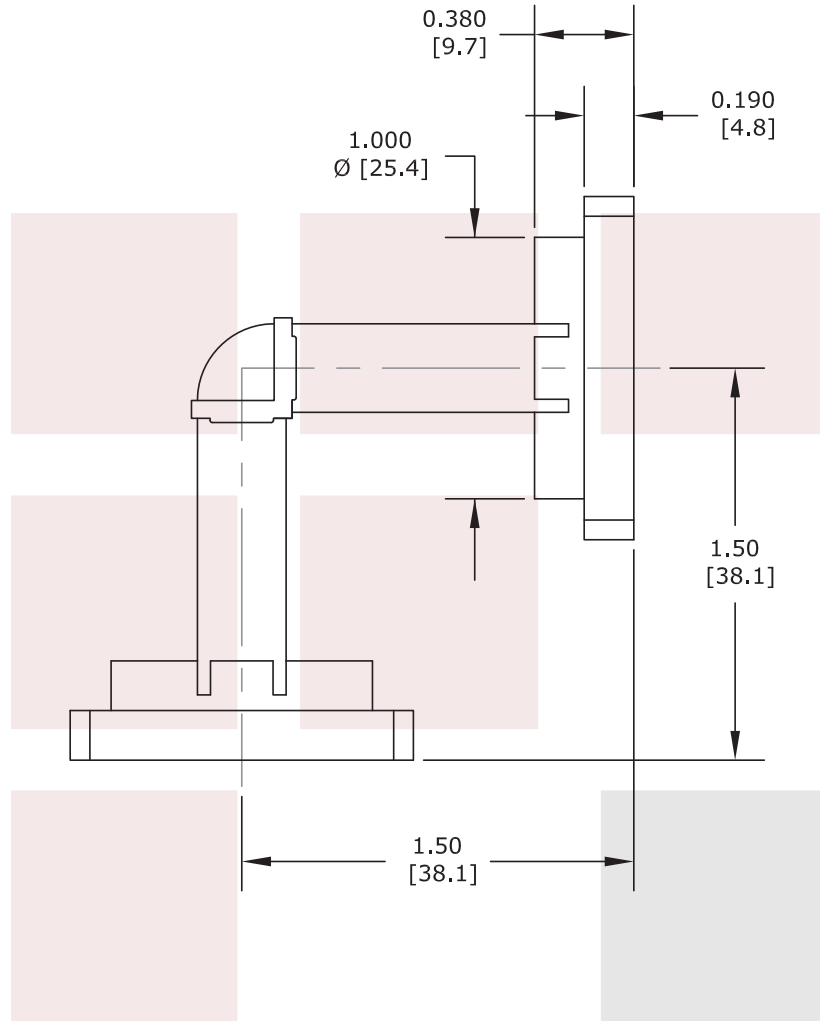


WR-51 Waveguide E-Bend Instrumentation Grade Using UBR180 Flange With a 15 GHz to 22 GHz Frequency Range from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

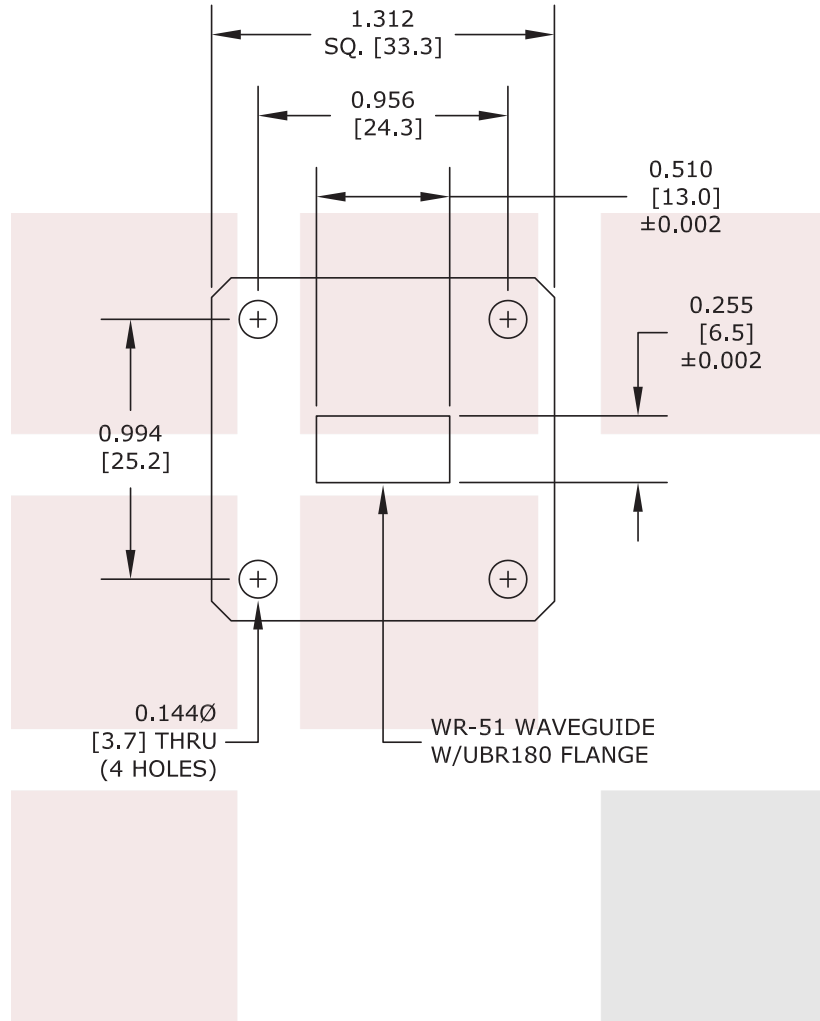
For additional information on this product, please click the following link: [WR-51 Waveguide E-Bend Instrumentation Grade Using UBR180 Flange With a 15 GHz to 22 GHz Frequency Range SMF-51EB-001](http://www.fairviewmicrowave.com/wr-51-waveguide-e-bend-ubr180-flange-15-22-ghz-smf-51eb-001-p.aspx)

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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.



<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE WR-51 Waveguide E-Bend Instrumentation Grade Using UBR180 Flange With a 15 GHz to 22 GHz Frequency Range		DWG NO		CAGE CODE	
		SMF-51EB-001		3FKR5	
CAD FILE	100614	SHEET	SCALE	N/A	SIZE A 2233



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