



WR-51 Instrumentation Grade Straight Waveguide Section 6 Inch  
Length with R180 Flange Operating from 15 GHz to 22 GHz

TECHNICAL DATA SHEET

PE-W51S001-6

Pasternack's instrumentation grade waveguide sections are constructed of a high quality oxygen free hard copper with high precision mechanical tolerances as tight as  $\pm 0.001$ " that ensures repeatable and consistent RF performance. Our commercial and instrumentation grade waveguide sections range in size from WR-12 to WR-137 and include grooved and non-grooved flanged designs. Standard lengths of Pasternack waveguide sections are offered from 3" to 12" in 3" increments and each waveguide section is labeled for easy identification. Custom lengths are available upon request. Our commercial grade waveguide sections are painted blue and our instrumentation grade versions are hard gold plated over a copper flash.

- WR-12 to WR-137 Waveguide Sections
- Grooved and Non-Grooved Flange Designs
- Available for frequency ranges between 5.8 GHz to 90 GHz
- Comprehensive waveguide offering also includes E-Bends, H-Bends, Waveguide to Coax Adapters, Filters, Terminations, and more.
- High Precision Tolerance as Tight as  $\pm 0.001$ "

Electrical Specifications

| Description     | Minimum | Typical | Maximum    | Units        |
|-----------------|---------|---------|------------|--------------|
| Frequency Range | 15      |         | 22         | GHz          |
| VSWR            |         |         | 1.06:1     |              |
| Insertion Loss  |         |         | 0.09 [0.3] | dB/ft [dB/m] |

Mechanical Specifications

|                  |                       |
|------------------|-----------------------|
| Waveguide Size   | WR-51                 |
| Waveguide Design | Instrumentation Grade |
| Section Length   | 6 in [152.4 mm]       |

| Description | Flange 1                    | Waveguide                   | Flange 2                    |
|-------------|-----------------------------|-----------------------------|-----------------------------|
| Interface   | R180                        | WR-51                       | R180                        |
| Material    | Oxygen Free Hard Copper     | Oxygen Free Hard Copper     | Oxygen Free Hard Copper     |
| Plating     | Hard Gold over Copper Flash | Hard Gold over Copper Flash | Hard Gold over Copper Flash |
| Color       | Gold                        | Gold                        | Gold                        |

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

RoHS Compliant

Notes:

- Values at +25 °C, sea level

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: WR-51 Instrumentation Grade Straight Waveguide Section 6 Inch Length with R180 Flange Operating from 15 GHz to 22 GHz PE-W51S001-6

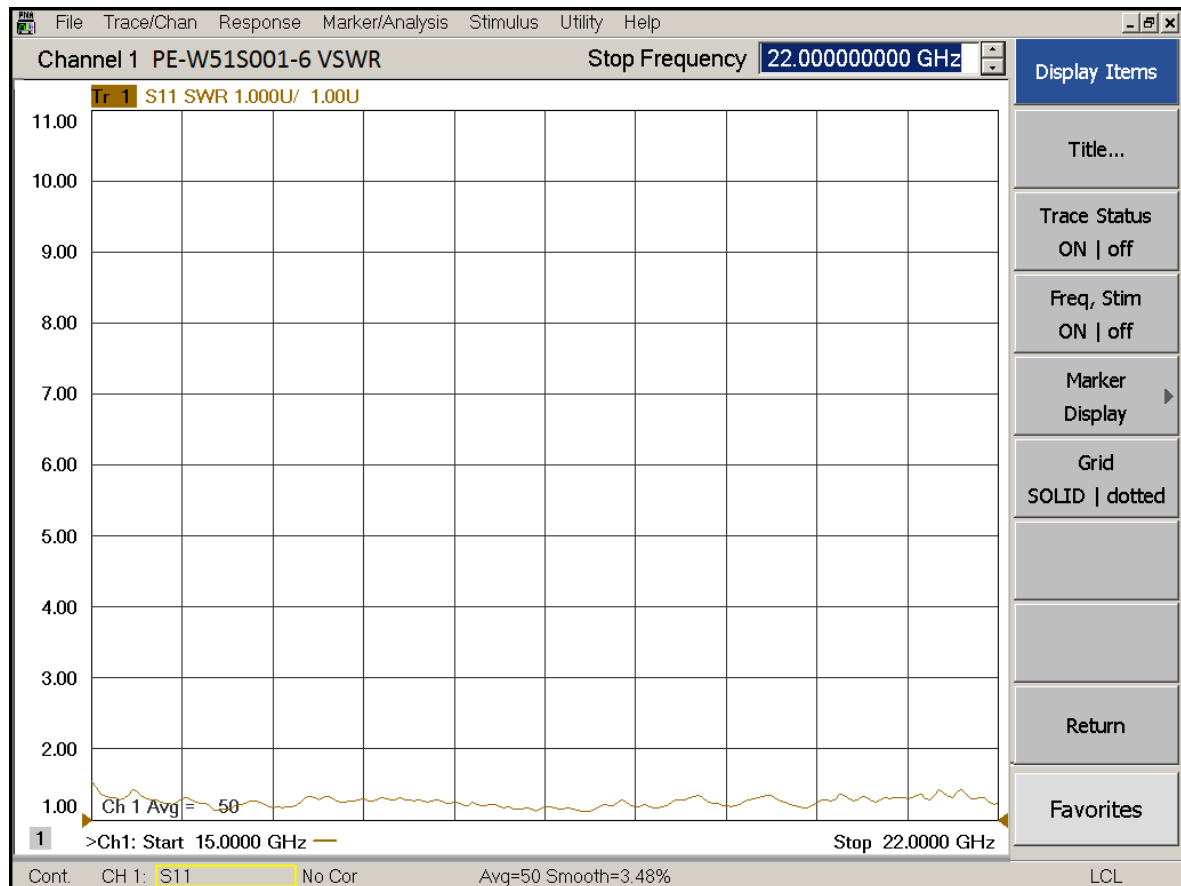


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Power Data



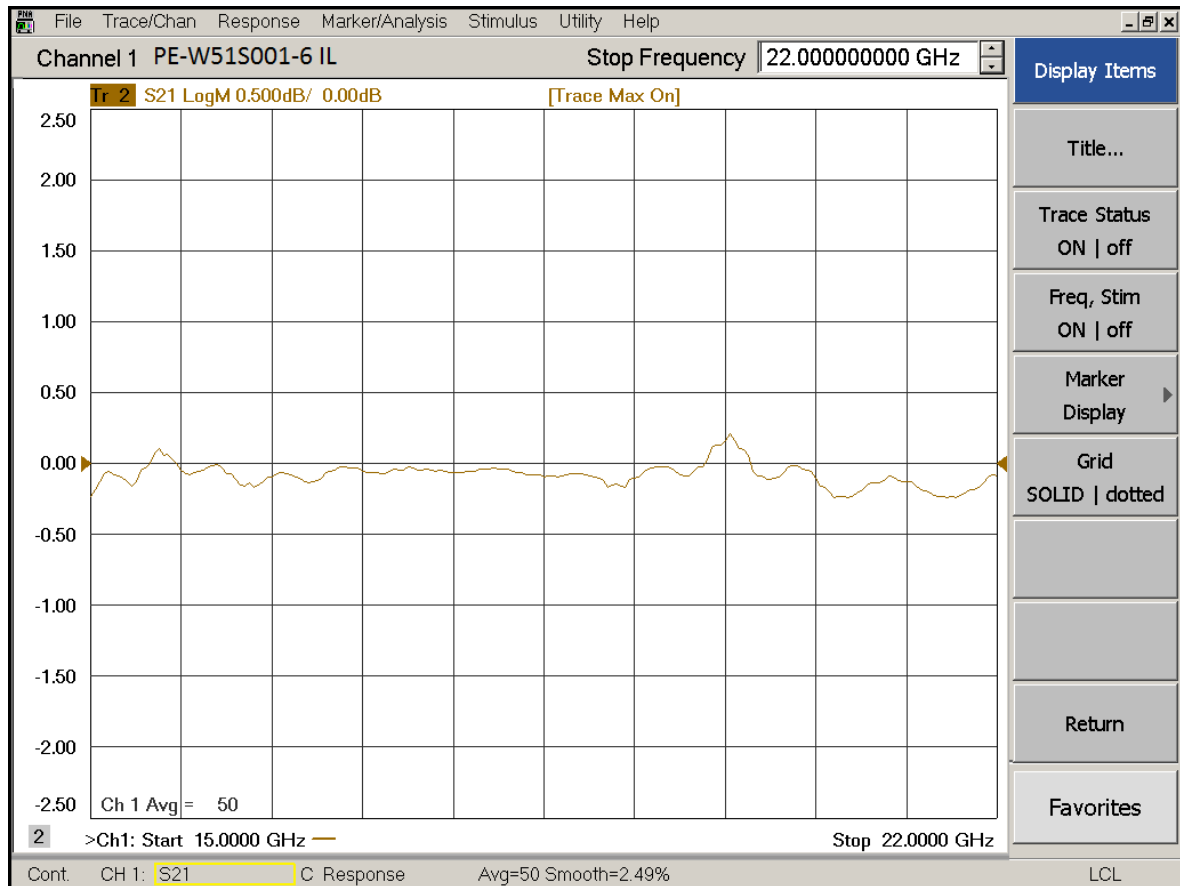
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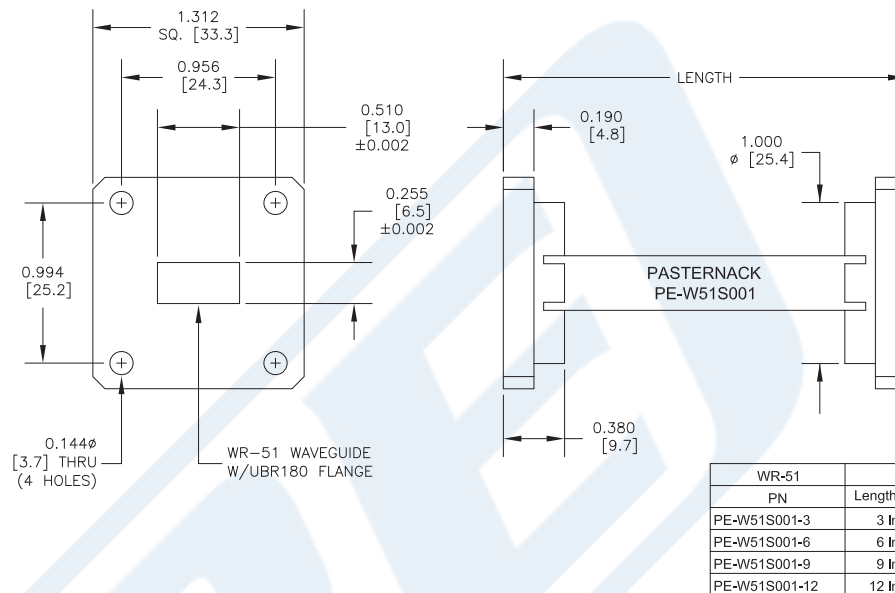


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Outline Drawing



WR-51 Instrumentation Grade Straight Waveguide Section 6 Inch Length with R180 Flange Operating from 15 GHz to 22 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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