



WR-22 Waveguide Magic Tee, UG-383/U Round Cover Flange Operating from 33 GHz to 50 GHz

Waveguide Magic Tees Technical Data Sheet

PEWMT1004

Features

- 33 to 50 GHz Frequency Range
- E to H Port Isolation 25 dB Min
- Collinear Port Isolation 15 dB Min
- 0.7 dB Insertion loss
- Q Band

Applications

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

Description

Pasternack's PEWMT1004 is a magic, or hybrid tee that operates from 33 GHz to 50 GHz, Q band. It is a 4 port device that is internally tuned to optimize matching, balance, and isolation. Magic tees have an H-plane (sum) port, an E-plane (difference) port, and two collinear ports. A signal applied to the H port will be equally divided between the two collinear ports. A signal applied to the E port will be divided between the two collinear ports but with a 180 degree phase difference. Similarly, when two in-phase signals of equal amplitude are applied to the collinear ports, these will be added together at the H-plane (sum) port and subtracted from one another at the E-plane (difference) port.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	33		50	GHz
Insertion Loss			0.7	dB
Isolation, E-H (Difference-Sum) Ports	25			dB
Isolation, Collinear Ports	15			dB

Mechanical Specifications

Size

Weight	0.274 lbs [124.28 g]
Waveguide Size	WR-22
Flange Type	Round Cover
Flange Designation	UG-383/U
Body Material and Plating	Aluminum, Gold
Body Plating Specification	ASTMB488

Environmental Specifications

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

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-22 Waveguide Magic Tee, UG-383/U Round Cover Flange Operating from 33 GHz to 50 GHz PEWMT1004](#)

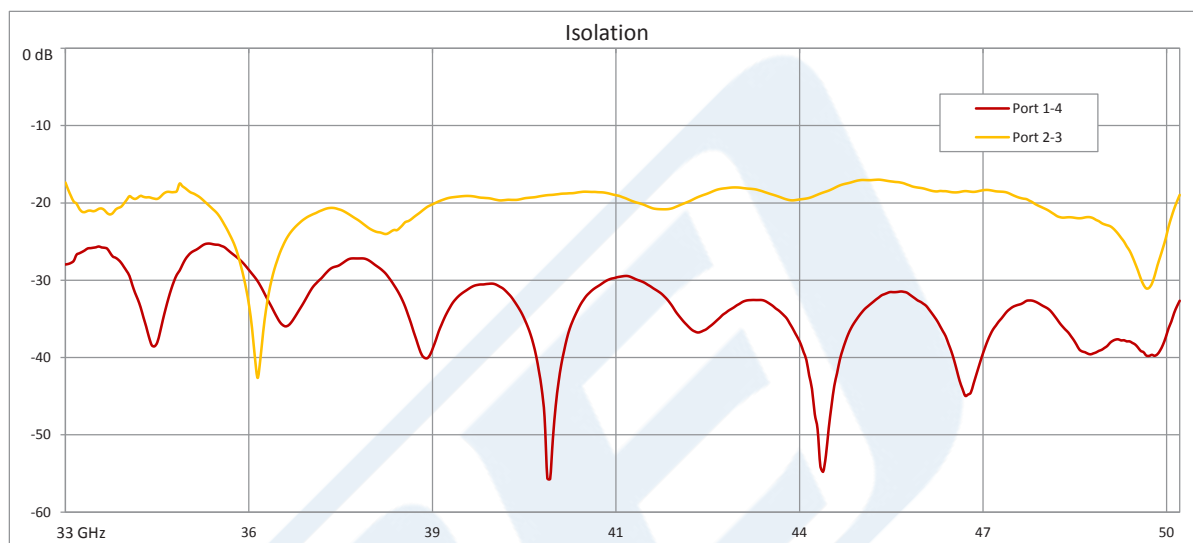




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WR-22 Waveguide Magic Tee, UG-383/U Round Cover Flange Operating from 33 GHz to 50 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-22 Waveguide Magic Tee, UG-383/U Round Cover Flange Operating from 33 GHz to 50 GHz PEWMT1004](https://www.pasternack.com/wr-22-waveguide-magic-tee-ug383-round-50-ghz-pewmt1004-p.aspx)

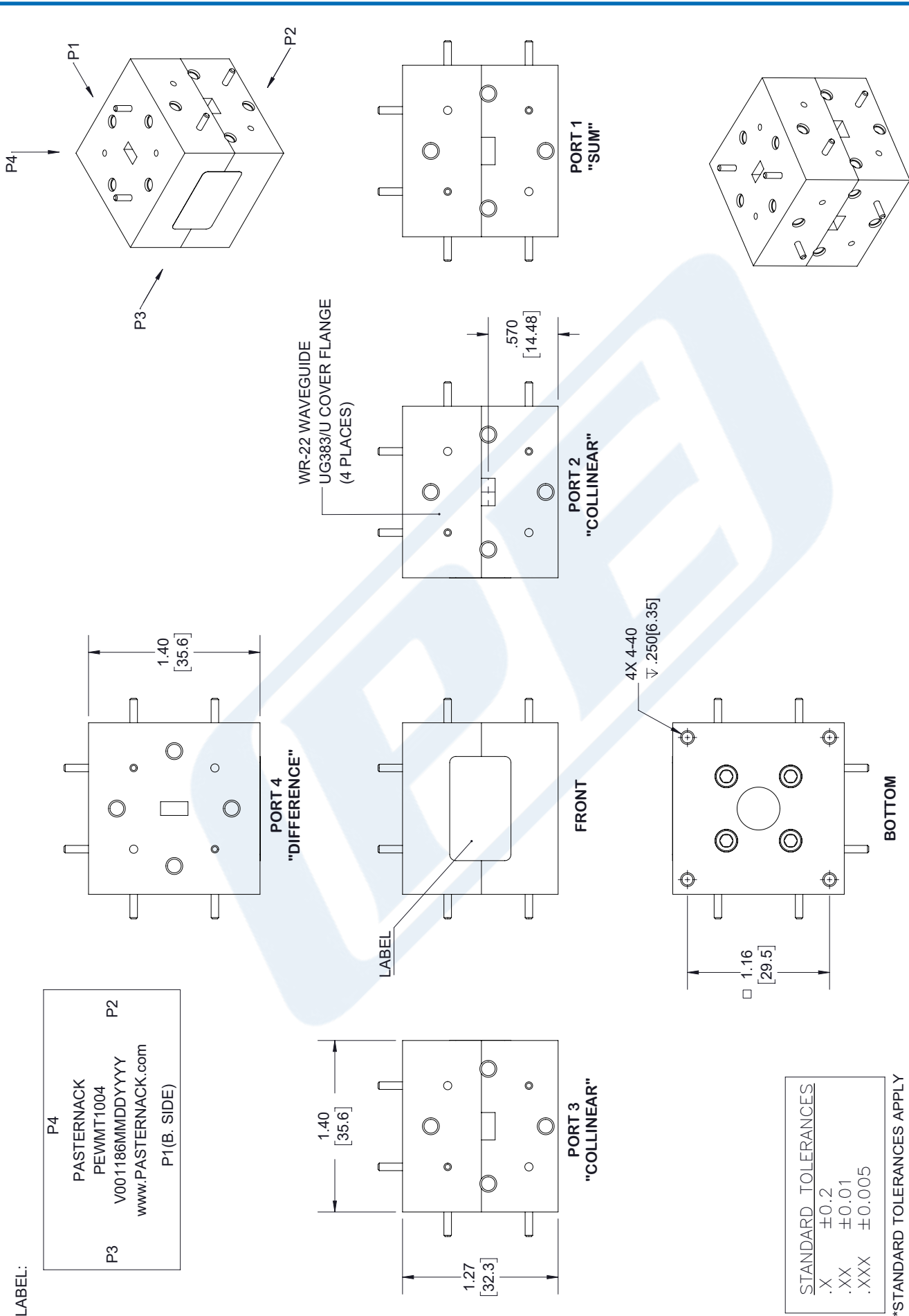
URL: <https://www.pasternack.com/wr-22-waveguide-magic-tee-ug383-round-50-ghz-pewmt1004-p.aspx>

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. 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.

PEWMT1004 CAD Drawing

WR-22 Waveguide Magic Tee, UG-383/U Round Cover

Flange Operating from 33 GHz to 50 GHz



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].

CAD FILE	111417	SCALE	N/A	SIZE	A	7361
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DWG TITLE	PEWMT1004
CAGE CODE	53919

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