



RF Cable Assemblies Technical Data Sheet PE3C6637-48 Configuration Connector 1: 2.92mm Male Connector 2: 2.4mm Male Cable Type: PE-P103 Features OUTER BRAID JACKET • Max Frequency 45 GHz Ø.103 ± .004 [2.62 ± 0.10] • Shielding Effectivity > 90 dB HELICAL FOIL DIELECTRIC 76% Phase Velocity (YELLOW) • Triple Shielded • ETFE Jacket SOLID CENTER INNER BRAID CONDUCTOR SECTION VIEW Applications General Purpose Laboratory Use

Description

Pasternack's PE3C6637-48 2.92mm male to 2.4mm male 48 inch cable using PE-P103 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack 2.92mm to 2.4mm cable assembly has a male to male gender configuration with 50 ohm flexible PE-P103 coax. The PE3C6637-48 2.92mm male to 2.4mm male cable assembly operates to 45 GHz. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 2.92mm Male to 2.4mm Male Cable 48 Inch Length Using PE-P103 Coax PE3C6637-48

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451 Sales@Pasternack.com • Techsupport@Pasternack.com

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|-------------|---------|--------------|
| Frequency Range | DC | | 45 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 76 | | % |
| RF Shielding | 90 | | | dB |
| Capacitance | | 26 [85.3] | | pF/ft [pF/m] |
| Inductance | | 65 [213.25] | | uH/ft [uH/m] |
| Input Power (Peak) | | | 550 | Watts |

| Specifications by Frequency | | | | | | | |
|-----------------------------|------|------|------|------|------|-------|--|
| Description | F1 | F2 | F3 | F4 | F5 | Units | |
| Frequency | 2.5 | 5 | 10 | 20 | 45 | GHz | |
| Insertion Loss (Max.) | 1.94 | 2.73 | 3.86 | 5.58 | 8.74 | dB | |
| Insertion Loss (Typ.) | 1.78 | 2.5 | 3.53 | 5.1 | 7.96 | dB | |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss is estimated as 0.1*SQRT(FGHz) dB per connector.

Mechanical Specifications

- Cable Assembly Length*
- Diameter

Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Shield Layer 3 Jacket Material Jacket Diameter 48 in [121.92 cm] 0.38 in [9.65 mm]

PE-P103 50 Ohms Stranded Copper, Silver PTFE 3 Silver Plated Copper Conductive Tape Silver Plated Copper ETFE, Gray 0.103 in [2.62 mm]

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One Time Minimum Bend Radius Repeated Minimum Bend Radius Typical Flex Cycles 0.32 in [8.13 mm] 0.96 in [24.38 mm] 500,000

Connectors

| Description | Connector 1 | Connector 2 | |
|------------------------------------|----------------------------|----------------------------|--|
| Туре | 2.92mm Male | 2.4mm Male | |
| Impedance | 50 Ohms | 50 Ohms | |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold | |
| Contact Plating Specification | ASTM-B488 50µ In. Min | ASTM-B488 50µ In. Min | |
| Dielectric Type | PPO | PPO | |
| Body Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel | |
| Body Plating Specification | SAE-AMS-2700 | SAE-AMS-2700 | |
| Coupling Nut Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel | |
| Coupling Nut Plating Specification | SAE-AMS-2700 | SAE-AMS-2700 | |
| Hex Size | 5/16 Inch | 5/16 Inch | |
| Torque | 8 in-lbs [0.9 Nm] | 8 in-lbs [0.9 Nm] | |
| | | | |

Environmental Specifications

Temperature Operating Range

-45 to +125 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Values at 25°C, sea level.

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How to Order Part Number Configuration: PE3C6637 - XX uu - Unit of Measure: cm = Centimeters <blank> = Inches Length **Base Number** Example: PE3C6637-12 = 12 inches long cable PE3C6637-100cm = 100 cm long cable 2.92mm Male to 2.4mm Male Cable 48 Inch Length Using PE-P103 Coax 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: 2.92mm Male to 2.4mm Male Cable 48 Inch Length Using PE-P103 Coax PE3C6637-48 URL: https://www.pasternack.com/2.92mm-male-2.4mm-male-pe-p103-cable-assembly-pe3c6637-48-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.

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PE3C6637-48 CAD Drawing 2.92mm Male to 2.4mm Male Cable 48 Inch Length Using PE-P103 Coax

