



Plenum 4.3-10 Male to 4.3-10 Female Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts

RF Cable Assemblies Technical Data Sheet

PE3C6174-48

Configuration

- Connector 1: 4.3-10 Male
- Connector 2: 4.3-10 Female
- Cable Type: SPP-250-LLPL

Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- 100% Tested with PIM Test Results Marked on Cable
- UL910 Plenum Rated Cable
- Lightweight and Extremely Flexible
- Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Plenum Installations
- Multi-Carrier Communication Systems
- PIM Testing

Description

Pasternack's PE3C6174-48 4.3-10 male to 4.3-10 female 48 inch cable using SPP-250-LLPL coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack 4.3-10 to 4.3-10 cable assembly has a male to female gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C6174-48 4.3-10 male to 4.3-10 female cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

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: [Plenum 4.3-10 Male to 4.3-10 Female Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6174-48](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|----------------------------------|
| Frequency Range | DC | | 5.8 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 76 | | % |
| RF Shielding | 100 | | | dB |
| Passive Intermodulation | | -165 | -160 | dBc |
| Capacitance | | 27 [88.58] | | pF/ft [pF/m] |
| Inductance | | 0.067 [0.22] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 3 [9.84] | | Ω /1000ft [Ω /Km] |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|-----|-----|-------|
| Frequency | 0.45 | 0.7 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Max.) | 0.3 | 0.38 | 0.43 | 0.7 | 1.1 | dB |

Electrical Specification Notes:

PIM test results vary between cables

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of $0.1 \cdot \sqrt{\text{FGHz}}$ dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.51 lbs [231.33 g]

Cable

Cable Type SPP-250-LLPL
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper
 Dielectric Type PTFE
 Number of Shields 1
 Shield Layer 1 Helically Corrugated Copper Tube
 Outer Conductor Material and Plating Copper
 Outer Conductor Diameter 0.25 in [6.35 mm]
 Jacket Material FEP, Blue
 Jacket Diameter 0.28 in [7.11 mm]

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One Time Minimum Bend Radius 1.25 in [31.75 mm]
 Bending Moment 0.8 lbs-ft [1.08 N-m]

Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|-------------------------|-------------------------|
| Type | 4.3-10 Male | 4.3-10 Female |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Phosphor Bronze, Silver | Phosphor Bronze, Silver |
| Contact Plating Specification | 200µ in | 200µ in |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | | Brass, Tri-Metal |
| Outer Conductor Plating Specification | | 80µ in |
| Body Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Body Plating Specification | 80µ in | 80µ in |
| Coupling Nut Material and Plating | Brass, Tri-Metal | |
| Coupling Nut Plating Specification | 80µ in | |
| Torque | 44.25 in-lbs [5 Nm] | |

Environmental Specifications

Temperature

Operating Range -55 to +200 deg C
 Storage Range -55 to +200 deg C
 Plenum Rating UL910

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:

PE3C6174

- **xx**

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3C6174-12 = 12 inches long cable
PE3C6174-100cm = 100 cm long cable

Plenum 4.3-10 Male to 4.3-10 Female Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts 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: [Plenum 4.3-10 Male to 4.3-10 Female Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6174-48](https://www.pasternack.com/4.3-10-male-4.3-10-female-spp250llpl-cable-assembly-pe3c6174-48-p.aspx)

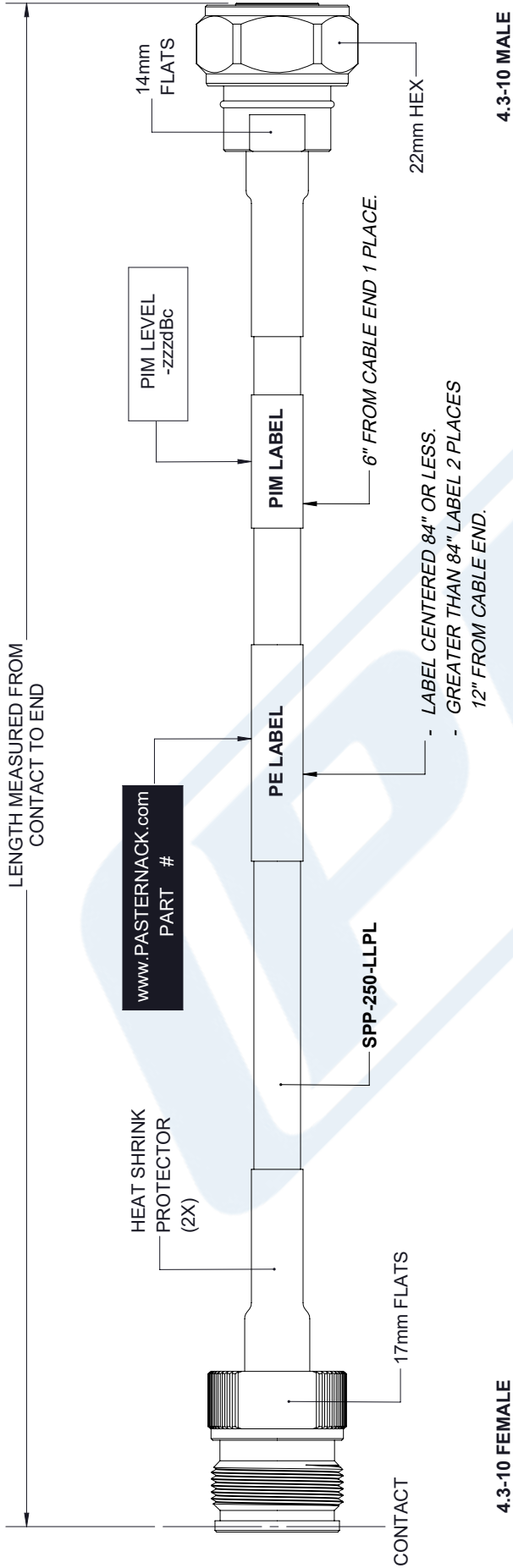
URL: <https://www.pasternack.com/4.3-10-male-4.3-10-female-spp250llpl-cable-assembly-pe3c6174-48-p.aspx>

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PE3C6174-48 CAD Drawing

Plenum 4.3-10 Male to 4.3-10 Female Low PIM Cable 48 Inch Length
Using SPP-250-LLPL Coax Using Times Microwave Parts

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 04/09/19 | S. ELLIS |



| | | | | | | | | | | | |
|--|--------------------------------------|-------------|-----------|---------|-------|-------|-----------|-------|-------------|---|---|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>X±.2</td> <td>[5.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX±.01</td> <td>[.25]</td> <td>±.132</td> </tr> <tr> <td>.XXX±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <p>THIRD-ANGLE PROJECTION</p> | X±.2 | [5.08] | FRACTIONS | .XX±.01 | [.25] | ±.132 | .XXX±.005 | [.13] | ANGLES ± 1° | <p>PE PASTERNAK an INFINITO brand</p> <p>Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 www.pasternack.com e-mail: sales@pasternack.com</p> | <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p> |
| | X±.2 | [5.08] | FRACTIONS | | | | | | | | |
| .XX±.01 | [.25] | ±.132 | | | | | | | | | |
| .XXX±.005 | [.13] | ANGLES ± 1° | | | | | | | | | |
| <p>SIZE A</p> <p>CAGE 53919</p> <p>DRAWN BY K.DANG</p> <p>PART NUMBER PE3C6174</p> | <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> | | | | | | | | | | |

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