



# RF Cable Assemblies Technical Data Sheet

PE3C6175-48

OUTER SHIFLD

DIELECTRIC

SOLID CENTER CONDUCTOR

# Configuration

• Connector 1: TC-SPP250-4310M-LP

4.3-10 Male

• Connector 2: TC-SPP250-4310M-LP

4.3-10 Male

· Cable: 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
- Systems
- PIM Testing



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SPP-250-LLPL

#### Description

Pasternack's PE3C6175-484.3-10 male to 4.3-10 male 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 male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C6175-48 4.3-10 male to 4.3-10 male 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 Male Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6175-48

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

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## PE3C6175-48

#### **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\*SQRT(FGHz) dB per connector.

# **Mechanical Specifications**

#### Cable Assembly

| Description                  | Minimum | Typical      | Maximum | Units   |
|------------------------------|---------|--------------|---------|---------|
| Length                       |         | 48.0 [121.9] |         | in [cm] |
| Jacket Diameter              |         | 0.28 [7.11]  |         | in [mm] |
| One Time Minimum Bend Radius | 1.25    |              |         | in      |
| Bending Moment               |         | 0.8          |         | lbs-ft  |
|                              |         |              |         |         |

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#### **Cable Characteristics**

| Description                          | Specification                    |  |  |
|--------------------------------------|----------------------------------|--|--|
| 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                        |  |  |

#### **Connector Characteristics**

| Description                        | Connector 1             | Connector 2             |
|------------------------------------|-------------------------|-------------------------|
| Туре                               | 4.3-10 Male             | 4.3-10 Male             |
| 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                    |
| 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        | Brass, Tri-Metal        |
| Coupling Nut Plating Specification | 80μ in                  | 80μ in                  |
| Torque                             | 44.25 in-lbs 5 Nm       | 44.25 in-lbs 5 Nm       |

Mechanical Specification Notes:

### **Environmental Specifications**

| Description                 | Specification     |  |
|-----------------------------|-------------------|--|
| Temperature Operating Range | -55 to +200 deg C |  |
| Temperature Storage Range   | -55 to +200 deg C |  |
| Plenum Rating               | UL910             |  |
|                             |                   |  |

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Compliance Certifications (see product page for current document)

#### **Plotted and Other Data**

Notes:

• Values at 25°C, sea level.



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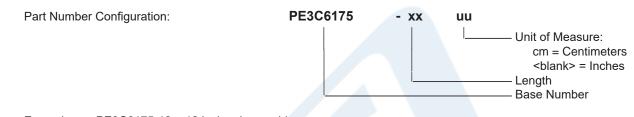




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#### **How to Order**



Example: PE3C6175-12 = 12 inches long cable PE3C6175-100cm = 100 cm long cable

Plenum 4.3-10 Male to 4.3-10 Male 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.

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URL: https://www.pasternack.com/4.3-10-male-4.3-10-male-spp250llpl-cable-assembly-pe3c6175-48-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.

PE3C6175-48 CAD Drawing
Plenum 4.3-10 Male to 4.3-10 Male Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts

