

Plenum 4.3-10 Male to 4.3-10 Male Right Angle  
Low PIM Cable 12 Inch Length Using SPP-250-LLPL Coax  
Using Times Microwave Parts



## RF Cable Assemblies Technical Data Sheet

**PE3C6176-12**

### Configuration

- Connector 1: 4.3-10 Male
- Connector 2: 4.3-10 Male Right Angle
- 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 PE3C6176-12 4.3-10 male to 4.3-10 male right angle 12 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 PE3C6176-12 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. The right angle 4.3-10 interface on the SPP-250-LLPL cable allows for easier connections in tight spaces. 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 Right Angle Low PIM Cable 12 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6176-12](#)

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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]     |         | $\Omega/1000ft$ [ $\Omega/Km$ ] |

### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.45 | 0.7  | 1    | 2.5  | 5.8  | GHz   |
| Insertion Loss (Max.) | 0.18 | 0.23 | 0.26 | 0.42 | 0.65 | 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  $0.1 * \text{SQRT}(F\text{GHz})$  dB per connector.

### Mechanical Specifications

#### Cable Assembly

Weight 0.3 lbs [136.08 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  
Bending Moment

1.25 in [31.75 mm]  
0.8 lbs-ft [1.08 N-m]

### Connectors

| Description                        | Connector 1             | Connector 2             |
|------------------------------------|-------------------------|-------------------------|
| Type                               | 4.3-10 Male             | 4.3-10 Male Right Angle |
| Impedance                          | 50 Ohms                 | 50 Ohms                 |
| Contact Material and Plating       | Phosphor Bronze, Silver | Brass, Silver           |
| Contact Plating Specification      | 200 $\mu$ in            | 200 $\mu$ in            |
| Dielectric Type                    | PTFE                    | PTFE                    |
| Body Material and Plating          | Brass, Tri-Metal        | Brass, Tri-Metal        |
| Body Plating Specification         | 80 $\mu$ in             | 80 $\mu$ in             |
| Coupling Nut Material and Plating  | Brass, Tri-Metal        | Brass, Nickel           |
| Coupling Nut Plating Specification | 80 $\mu$ in             | 200 $\mu$ in            |
| Torque                             | 44.25 in-lbs [5 Nm]     | 15.05 in-lbs [1.7 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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## RF Cable Assemblies Technical Data Sheet

**PE3C6176-12**

### How to Order

Part Number Configuration:

**PE3C6176**

- **xx**

**uu**

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

Example: PE3C6176-12 = 12 inches long cable  
PE3C6176-100cm = 100 cm long cable

Plenum 4.3-10 Male to 4.3-10 Male Right Angle Low PIM Cable 12 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 Male Right Angle Low PIM Cable 12 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6176-12](#)

URL: <https://www.pasternack.com/4.3-10-male-4.3-10-male-spp250llpl-cable-assembly-pe3c6176-12-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.

# PE3C6176-12 CAD Drawing

Plenum 4.3-10 Male to 4.3-10 Male Right Angle Low PIM Cable 12 Inch  
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