



SMA Male to 1.85mm Male Cable 24 Inch Length Using PE-P103 Coax

RF Cable Assemblies Technical Data Sheet

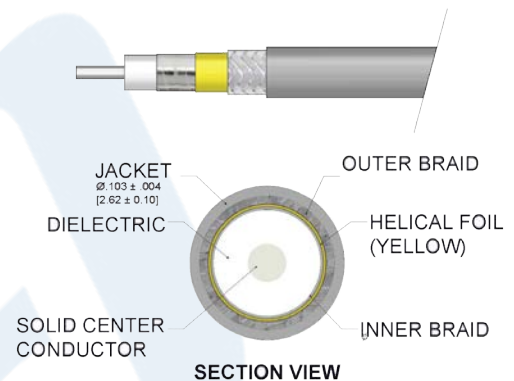
PE3C6633-24

Configuration

- Connector 1: SMA Male
- Connector 2: 1.85mm Male
- Cable Type: PE-P103

Features

- Max Frequency 26.5 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Triple Shielded
- ETFE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C6633-24 SMA male to 1.85mm male 24 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 SMA to 1.85mm cable assembly has a male to male gender configuration with 50 ohm flexible PE-P103 coax. The PE3C6633-24 SMA male to 1.85mm male cable assembly operates to 26.5 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: [SMA Male to 1.85mm Male Cable 24 Inch Length Using PE-P103 Coax PE3C6633-24](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|-------------|---------|--------------|
| Frequency Range | DC | | 26.5 | 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 | 1 | 2 | 4.5 | 9 | 26.5 | GHz |
| Insertion Loss (Max.) | 0.76 | 0.97 | 1.39 | 1.93 | 3.36 | dB |
| Insertion Loss (Typ.) | 0.71 | 0.9 | 1.29 | 1.77 | 3.07 | 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 $0.1 \cdot \sqrt{FGHz}$ dB per connector.

Mechanical Specifications

Cable Assembly

| | |
|----------|-------------------|
| Length* | 24 in [609.6 mm] |
| Diameter | 0.35 in [8.89 mm] |

Cable

| | |
|--------------------------------------|----------------------|
| Cable Type | PE-P103 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Stranded |
| Inner Conductor Material and Plating | Copper, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 3 |
| Shield Layer 1 | Silver Plated Copper |
| Shield Layer 2 | Conductive Tape |
| Shield Layer 3 | Silver Plated Copper |
| Jacket Material | ETFE, Gray |
| Jacket Diameter | 0.103 in [2.62 mm] |

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

Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|----------------------------|----------------------------|
| Type | SMA Male | 1.85mm 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 | PTFE | 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:

PE3C6633

- **xx**

uu

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

Example: PE3C6633-12 = 12 inches long cable
PE3C6633-100cm = 100 cm long cable

SMA Male to 1.85mm Male Cable 24 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: [SMA Male to 1.85mm Male Cable 24 Inch Length Using PE-P103 Coax PE3C6633-24](https://www.pasternack.com/sma-male-1.85mm-male-pe-p103-cable-assembly-pe3c6633-24-p.aspx)

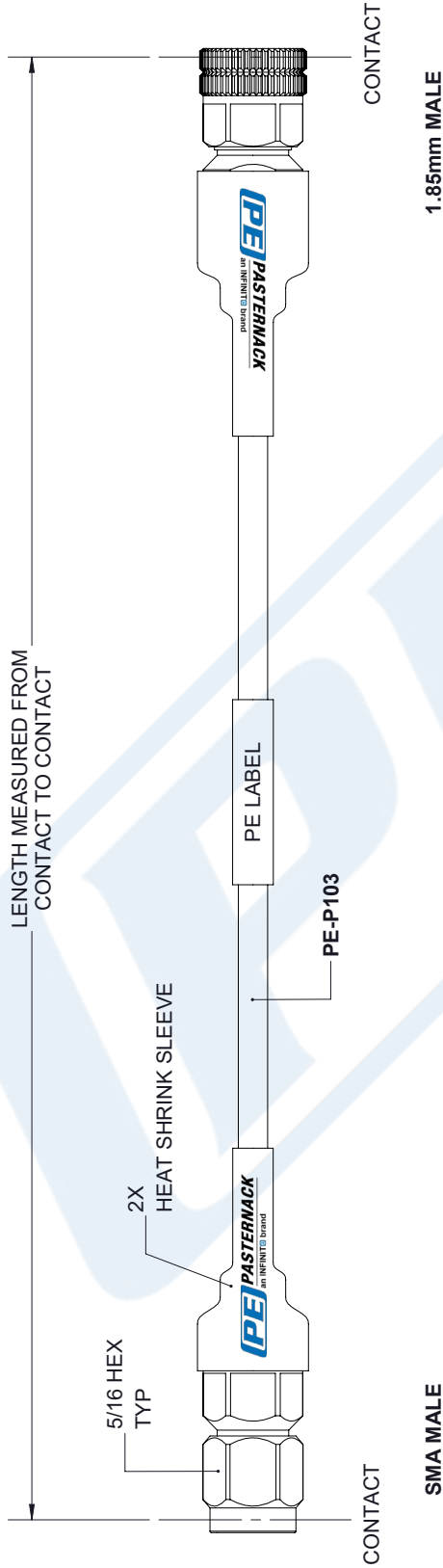
URL: <https://www.pasternack.com/sma-male-1.85mm-male-pe-p103-cable-assembly-pe3c6633-24-p.aspx>

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.

PE3C6633-24 CAD Drawing

SMA Male to 1.85mm Male Cable 24 Inch Length Using PE-P103 Coax

| REV. | DESCRIPTION | DATE | APPROVED |
|------|-----------------|----------|----------|
| A | INITIAL RELEASE | 11/08/19 | 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 = ±.02</td> <td>[.51]</td> <td>± 1/32</td> </tr> <tr> <td>.XXX = ±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L) TOLERANCES:</p> <table border="0"> <tr> <td>L ≤ 12</td> <td>[305]</td> <td>= +1 [25] / -0</td> </tr> <tr> <td>12 [305] < L ≤ 60</td> <td>[1524]</td> <td>= +2 [51] / -0</td> </tr> <tr> <td>60 [1524] < L ≤ 120</td> <td>[3048]</td> <td>= +4 [102] / -0</td> </tr> <tr> <td>120 [3048] < L ≤ 300</td> <td>[7620]</td> <td>= +6 [152] / -0</td> </tr> <tr> <td>300 [7620] < L ≤</td> <td></td> <td>+5% L / -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> | .X = ±.2 | [5.08] | FRACTIONS | .XX = ±.02 | [.51] | ± 1/32 | .XXX = ±.005 | [.13] | ANGLES ± 1° | L ≤ 12 | [305] | = +1 [25] / -0 | 12 [305] < L ≤ 60 | [1524] | = +2 [51] / -0 | 60 [1524] < L ≤ 120 | [3048] | = +4 [102] / -0 | 120 [3048] < L ≤ 300 | [7620] | = +6 [152] / -0 | 300 [7620] < L ≤ | | +5% L / -0 | <p>PE LABEL:</p> <p>www.PASTERNAK.com PE3C6633</p> | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |
| | .X = ±.2 | [5.08] | FRACTIONS | | | | | | | | | | | | | | | | | | | | | | | |
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| 300 [7620] < L ≤ | | +5% L / -0 | | | | | | | | | | | | | | | | | | | | | | | | |
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