



## SMA Male to SMA Male Cable Using RG316 Coax In 24 Inch Length

### RF Cable Assemblies Technical Data Sheet

**PE3C1820-24**

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: RG316

#### Features

- Max Frequency 3 GHz
- 69% Phase Velocity
- FEP Jacket

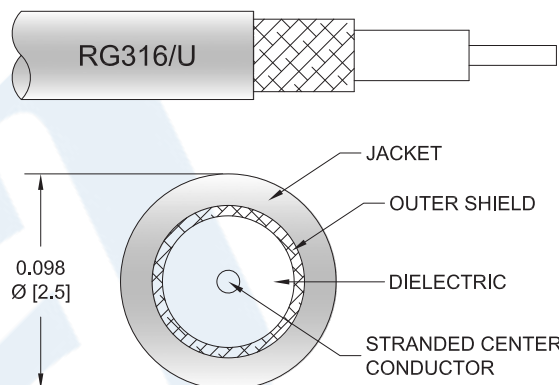
#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C1820-24 SMA male to SMA male 24 inch cable using RG316 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 SMA cable assembly has a male to male gender configuration with 50 ohm flexible RG316 coax. The PE3C1820-24 SMA male to SMA male cable assembly operates to 3 GHz.

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 SMA Male Cable Using RG316 Coax In 24 Inch Length PE3C1820-24](#)



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#### Electrical Specifications

| Description             | Minimum | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| Frequency Range         | DC      |         | 3       | GHz   |
| Velocity of Propagation |         | 69      |         | %     |
| Operating Voltage (AC)  |         |         | 375     | Vrms  |
| Jacket Spark            |         |         | 2,000   | Vrms  |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 3    | GHz   |
| Insertion Loss (Typ.) | 0.23 | 0.36 | 0.53 | 0.78 | 1.42 | dB    |

#### Electrical Specification Notes:

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

#### Mechanical Specifications

##### Cable Assembly

Length\* 24 in [609.6 mm]

Weight 0.03 lbs [13.61 g]

##### Cable

Cable Type RG316  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE  
 Number of Shields 1  
 Shield Layer 1 Silver Plated Copper Braid  
 Jacket Material FEP, Tan  
 Jacket Diameter 0.102 in [2.59 mm]

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## SMA Male to SMA Male Cable Using RG316 Coax In 24 Inch Length

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#### Connectors

| Description                       | Connector 1     | Connector 2     |
|-----------------------------------|-----------------|-----------------|
| Type                              | SMA Male        | SMA Male        |
| Impedance                         | 50 Ohms         | 50 Ohms         |
| Contact Material and Plating      | Brass, Gold     | Brass, Gold     |
| Dielectric Type                   | Teflon          | Teflon          |
| Body Material and Plating         | Stainless Steel | Stainless Steel |
| Coupling Nut Material and Plating | Stainless Steel | Stainless Steel |

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

#### How to Order

Part Number Configuration:

**PE3C1820**

- **xx**

**uu**

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

Example: PE3C1820-12 = 12 inches long cable  
PE3C1820-100cm = 100 cm long cable

SMA Male to SMA Male Cable Using RG316 Coax In 24 Inch Length 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.

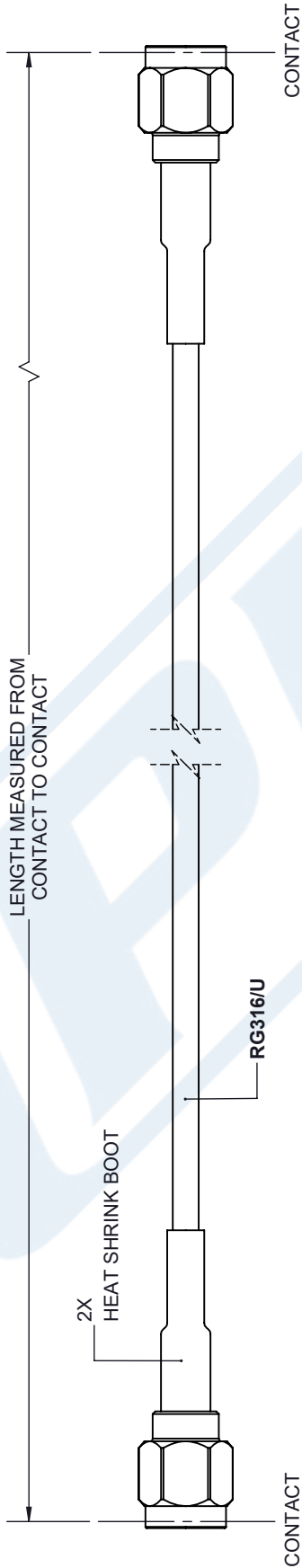
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URL: <https://www.pasternack.com/sma-male-to-sma-male-cable-24-inch-length-using-rg316-pe3c1820-24-p.aspx>

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.

PE3C1820-24 CAD Drawing  
SMA Male to SMA Male Cable Using RG316 Coax In 24 Inch Length

| REVISIONS |                 |           |            |
|-----------|-----------------|-----------|------------|
| REV.      | DESCRIPTION     | DATE      | APPROVED   |
| A         | INITIAL RELEASE | 11/5/2021 | A. GANWANI |



UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

|               |        |             |        |
|---------------|--------|-------------|--------|
| X = ± .2      | [.008] | FRACTIONS   | ± 1/32 |
| .XX = ± .02   | [.51]  | ANGLES ± 1° |        |
| .XXX = ± .005 | [.13]  |             |        |

CABLE LENGTH (L) TOLERANCES:

|                             |            |      |
|-----------------------------|------------|------|
| 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 |

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

**PE PASTERNAK**  
an INFINITE brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE3C1820

DRAWN BY K.DANG

CAGE CODE 53919

SIZE A

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