

## SMA Male to SMA Female Cable Using RG174 Coax

### PE3W02514

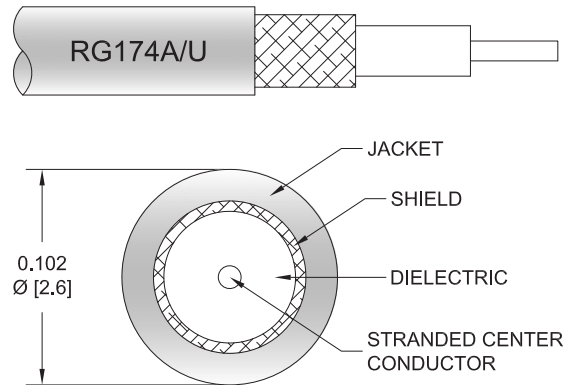


#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female
- Cable Type: RG174
- Coax Flex Type: Flexible

#### Features

- Max Frequency 1 GHz
- 66% Phase Velocity
- PVC Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W02514 SMA male to SMA female cable using RG174 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 female gender configuration with 50 ohm flexible RG174 coax. The PE3W02514 SMA male to SMA female cable assembly operates to 1 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.

#### Electrical Specifications

| Description             | Minimum | Typical       | Maximum | Units        |
|-------------------------|---------|---------------|---------|--------------|
| Frequency Range         | DC      |               | 1,000   | MHz          |
| Velocity of Propagation |         | 66            |         | %            |
| Capacitance             |         | 31.1 [102.03] |         | pF/ft [pF/m] |

#### Specifications by Frequency

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| Part Number  | Length                   | Description           | F1   | F2   | F3   | F4   | Units | Weight (lbs) |
|--------------|--------------------------|-----------------------|------|------|------|------|-------|--------------|
|              |                          | Frequency             | 100  | 250  | 500  | 1000 | MHz   |              |
| PE3W02514    | Custom Lengths Available | Insertion Loss (Typ.) | 0.08 | 0.14 | 0.21 | 0.32 | dB/ft |              |
|              |                          |                       | 0.28 | 0.45 | 0.7  | 1.05 | dB/m  |              |
| PE3W02514-12 | 12 inch                  | Insertion Loss (Typ.) | 0.29 | 0.34 | 0.42 | 0.52 | dB    | 0.027        |
| PE3W02514-24 | 24 inch                  | Insertion Loss (Typ.) | 0.37 | 0.48 | 0.63 | 0.84 | dB    | 0.036        |
| PE3W02514-36 | 36 inch                  | Insertion Loss (Typ.) | 0.46 | 0.62 | 0.84 | 1.16 | dB    | 0.045        |
| PE3W02514-48 | 48 inch                  | Insertion Loss (Typ.) | 0.54 | 0.75 | 1.05 | 1.48 | dB    | 0.054        |
| PE3W02514-72 | 72 inch                  | Insertion Loss (Typ.) | 0.71 | 1.03 | 1.47 | 2.12 | dB    | 0.072        |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.1 dB  
 Loss due to Connector 2: 0.1 dB  
 Base Weight: 0.027 pounds  
 Additional Weight per Inch: 0.00075 pounds

## Mechanical Specifications

### Cable Assembly

Weight 0.027 lbs [12.25 g]

### Cable

Cable Type RG174  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PE (LD)  
 Number of Shields 1  
 Shield Layer 1 Tinned Copper Braid  
 Jacket Material PVC, Black  
 Jacket Diameter 0.11 in [2.79 mm]

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**PE3W02514**

### Connectors

| Description                          | Connector 1      | Connector 2            |
|--------------------------------------|------------------|------------------------|
| Type                                 | SMA Male         | SMA Female             |
| Specification                        |                  | MIL-STD-348            |
| Impedance                            | 50 Ohms          | 50 Ohms                |
| Configuration                        | Straight         | Straight               |
| Mating Cycles                        |                  | 100                    |
| Contact Material and Plating         | Brass, Gold      | Beryllium Copper, Gold |
| Dielectric Type                      | PTFE             | PTFE                   |
| Outer Conductor Material and Plating |                  | Brass, Nickel          |
| Body Material and Plating            | Brass, Gold      | Brass, Nickel          |
| Coupling Nut Material and Plating    | Brass, Gold      |                        |
| Hex Size                             | 5/16 in          |                        |
| Torque                               | 5 in-lbs 0.57 Nm |                        |

### Environmental Specifications

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

### Plotted and Other Data

Notes:

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**PE3W02514**

## Typical Performance Data

## How to Order

Part Number Configuration:

**PE3W02514**

- XX

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- Unit of Measure:  
cm = Centimeters  
<blank> = Inches

- Length

- Base Number

Example: PE3W02514-12 = 12 inches long cable  
PE3W02514-100cm = 100 cm long cable

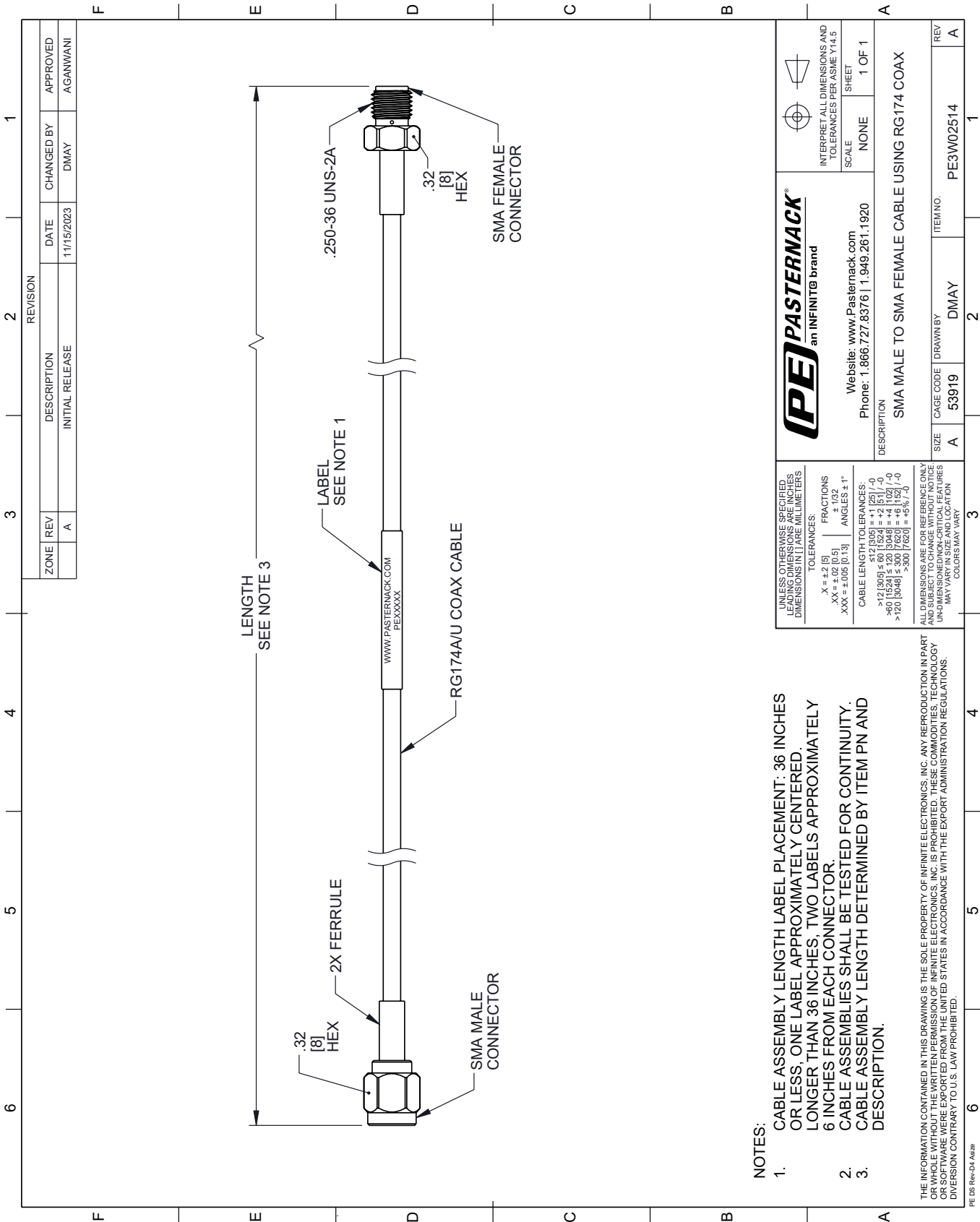
SMA Male to SMA Female Cable Using RG174 Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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 SMA Female Cable Using RG174 Coax PE3W02514](#)

URL: <https://www.pasternack.com/sma-male-to-sma-female-cable-using-rg174-pe3w02514-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3W02514 CAD Drawing
SMA Male to SMA Female Cable Using RG174 Coax



- 1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS; ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
- 2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
- 3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

|   |  |                                       |  |   |  |  |  |
|---|--|---------------------------------------|--|---|--|--|--|
| UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, TRAILING DIMENSIONS ARE IN MILLIMETERS                          |  | TOLERANCES:                           |  | FRACTIONS                               |  | ANGLES ± 1°                              |  |
| .X = ±.2 [5]  |  | .XX = ±.02 [0.5]                      |  | .XXX = ±.005 [0.13]                     |  | ± 1/32                                   |  |
| CABLE LENGTH TOLERANCES:  |  | >12 [305] ≤ 60 [1524] = ±.1 [25] / -0 |  | >60 [1524] ≤ 120 [3048] = ±.1 [25] / -0 |  | >120 [3048] ≤ 300 [7620] = ±.1 [25] / -0 |  |
| ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY. |  | CABLE LENGTH TOLERANCES:              |  | >12 [305] ≤ 60 [1524] = ±.1 [25] / -0   |  | >60 [1524] ≤ 120 [3048] = ±.1 [25] / -0  |  |