



## SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

### RF Connectors Technical Data Sheet

**PE4404**

#### Configuration

- SMA Male Connector
- MIL-STD-348
- 50 Ohms
- Straight Body Geometry
- PE-047SR, PE-SR047AL, PE-SR047FL Interface Type
- Solder/Solder Attachment
- 5/16 inch Hex
- Precision Design

#### Features

- Max. Operating Frequency 18 GHz
- Excellent VSWR of 1.2:1
- Gold over Nickel Plated Beryllium Copper Contact
- 50 µin minimum contact plating

#### Applications

- General Purpose Test
- Precision Test & Measurement
- Custom Cable Assemblies

#### Description

Pasternack's PE4404 SMA male precision connector with solder/solder attachment for PE-047SR, PE-SR047AL and PE-SR047FL is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 18 GHz and offers excellent VSWR of 1.2:1.

Our SMA male connector PE4404 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

#### Electrical Specifications

| Description                            | Minimum | Typical | Maximum | Units |
|--|---------|---------|---------|-------|
| Frequency Range                        | DC      |         | 18      | GHz   |
| VSWR                                   |         |         | 1.2:1   |       |
| Insertion Loss                         |         |         | 0.17    | dB    |
| Operating Voltage (AC)                 |         |         | 500     | Vrms  |
| Dielectric Withstanding Voltage (AC)   |         |         | 1,500   | Vrms  |
| High Potential Voltage<br>5 to 7.5 MHz |         |         | 1,000   | Vrms  |
| Corona Discharge<br>at 70,000 ft       |         |         | 375     | Vrms  |
| Insulation Resistance                  | 5,000   |         |         | MOhms |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE4404](#)



## SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

### RF Connectors Technical Data Sheet

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#### Performance by Frequency

| Description     | F1       | F2       | F3 | F4 | F5 | Units |
|-----------------|----------|----------|----|----|----|-------|
| Frequency Range | DC to 14 | 14 to 18 |    |    |    | GHz   |
| VSWR, Max       | 1.13:1   | 1.2:1    |    |    |    |       |

Electrical Specification Notes:  
Insertion loss:  $0.04 \times \sqrt{f(\text{GHz})}$  dB max.  
RF leakage: 90 dB min up to 1 GHz.

#### Mechanical Specifications

|               |                                  |
|---------------|----------------------------------|
| <b>Size</b>   |                                  |
| Length        | 0.489 in [12.42 mm]              |
| Width/Dia.    | 0.312 in [7.92 mm]               |
| Weight        | 0.008 lbs [3.63 g]               |
| Mating Cycles | 500 Cycles                       |
| Mating Torque | 7 to 10 in-lbs [0.79 to 1.13 Nm] |

#### Material Specifications

| Description  | Material         | Plating                            |
|--------------|------------------|------------------------------------|
| Contact      | Beryllium Copper | Gold over Nickel<br>50 µin minimum |
| Insulation   | PTFE             |                                    |
| Body         | Brass            | Gold over Nickel<br>50 µin minimum |
| Coupling Nut | Brass            | Nickel<br>50 µin minimum           |

#### Environmental Specifications

|                    |   |
|--------------------|---|
| <b>Temperature</b> |   |
| Operating Range    | -65 to +165 deg C                         |
| Humidity           | MIL-STD-202, Method 106, No Vibration     |
| Shock              | MIL-STD-202, Method 213, Condition I      |
| Vibration          | MIL-STD-202, Method 204, Condition D      |
| Thermal Shock      | MIL-STD-202, Method 107, Condition B      |
| Salt Spray         | MIL-STD-202, Method 101, Condition B (5%) |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE4404](#)



SMA Male Precision Connector Solder Attachment  
for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE4404

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

**Plotted and Other Data**

Notes:

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PE4404



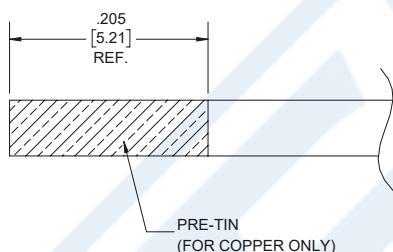
## SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

### RF Connectors Technical Data Sheet

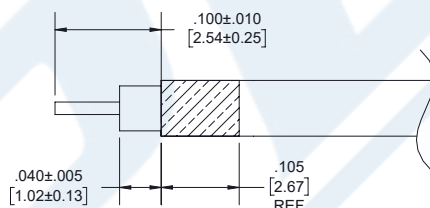
PE4404

#### Assembly Instruction

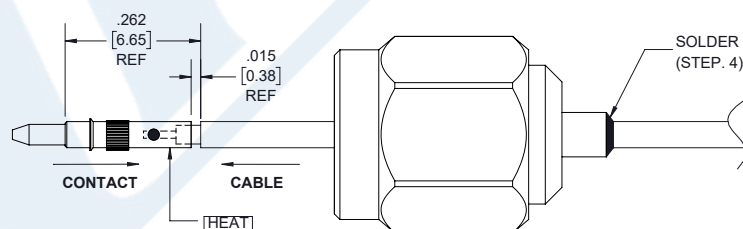
1. PRE-TIN CABLE JACKET TO THE REFERENCE LENGTH AS SHOWN. ONLY FOR COPPER OUTER CONDUCTOR CABLE.



2. A. STRIP CABLE TO THE DIMENSIONS AS SHOWN TO EXPOSE CENTER CONDUCTOR AND DIELECTRIC.  
B. PRE-TIN CABLE CENTER CONTACT.  
C. SLIDE CONNECTOR THROUGH CABLE.



3. INSERT CENTER CONDUCTOR INTO CONTACT UNTIL DIELECTRIC BOTTOMS INSIDE CONTACT. SOFT SOLDER CONTACT TO CENTER CONDUCTOR. DO NOT OVER HEAT DIELECTRIC.



4. USING ASSEMBLY TOOL, PRESS CONTACT FULLY INTO INSULATOR. SOLDER OUTER CONDUCTOR TO BODY.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE4404](#)



## SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

### RF Connectors Technical Data Sheet

PE4404

SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL 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.

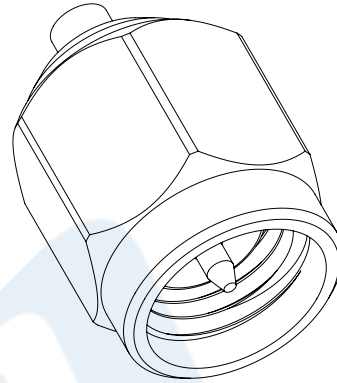
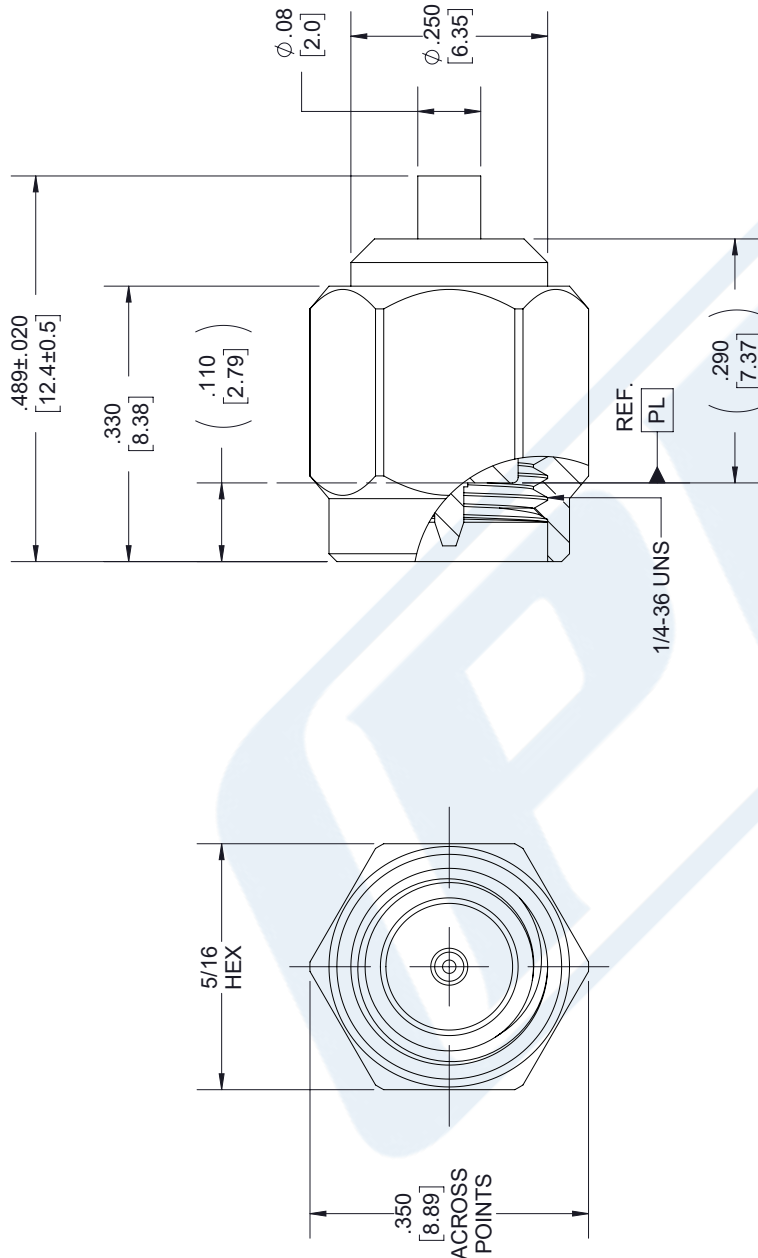
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URL: <https://www.pasternack.com/sma-male-standard-pe-047sr-pe-sr047al-pe-sr047fl-connector-pe4404-p.aspx>

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.

# PE4404 CAD Drawing

SMA Male Precision Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL



## STANDARD TOLERANCES

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



Pasternack Enterprises, Inc.  
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DWG TITLE

PE4404

CAGE CODE 53919

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE 010918

SCALE N/A

SIZE A

7361



Mini SMP Female Connector Solder Attachment  
for PE-047SR, PE-SR047FL

TECHNICAL DATA SHEET

PE44971

**Configuration**

|                                    |                      |
|------------------------------------|----------------------|
| Connector                          | Mini SMP Female      |
| Connector Specification            | MIL-STD-348          |
| Connector Interface Type           | PE-047SR, PE-SR047FL |
| Attachment Method (Shield/Contact) | Solder               |
| Body Style                         | Straight             |

**Electrical Specifications**

|           |         |
|-----------|---------|
| Impedance | 50 Ohms |
|-----------|---------|

**Mechanical Specifications**

**Size**

|            |                     |
|------------|---------------------|
| Length     | 0.29 in [7.37 mm]   |
| Width/Dia. | 0.125 in [3.18 mm]  |
| Weight     | 0.082 lbs [37.19 g] |

**Connector**

|                               |                        |
|-------------------------------|------------------------|
| Type                          | Mini SMP Female        |
| Contact Material and Plating  | Beryllium Copper, Gold |
| Contact Plating Specification | MIL-G-45204            |
| Body Material and Plating     | Beryllium Copper, Gold |
| Body Plating Specification    | MIL-G-45204            |
| Dielectric Type               | PTFE                   |

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047FL PE44971](#)



## Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047FL

### TECHNICAL DATA SHEET

PE44971

#### Plotted and Other Data

Notes:

- Values at +25 °C, sea level

Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047FL from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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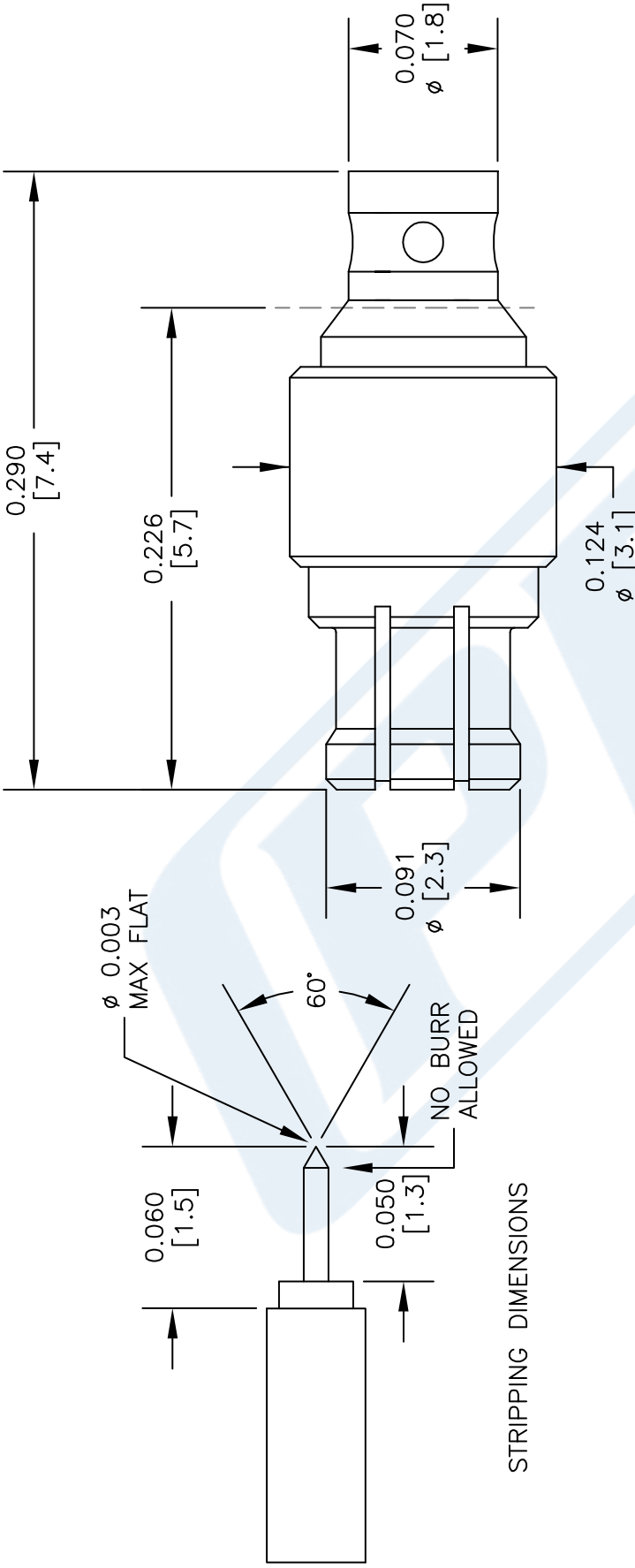
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PE44971 CAD Drawing

Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047FL



STRIPPING DIMENSIONS

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].  
4. FITS MIL-C-17 AND EQUIVALENT CABLES.

DWG TITLE  
**PE44971**

FSCM NO. 53919

CAD FILE 110413  
SCALE N/A  
SIZE A  
150

**PE PASTERNAK**  
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## 047 Semi-rigid Coax Cable with Copper Outer Conductor

## TECHNICAL DATA SHEET

PE-047SR

**Configuration**

|                                      |                           |
|--------------------------------------|---------------------------|
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type                      | PTFE                      |
| Shield Materials                     | Copper                    |

**Electrical Specifications**

|                                       |       |
|---------------------------------------|-------|
| Impedance, Ohms                       | 50    |
| Maximum Operating Frequency, GHz      | 40    |
| Dielectric Withstanding Voltage, Vrms | 2,000 |

**Electrical Specifications by Frequency****Frequency 1**

|                                 |             |
|---------------------------------|-------------|
| Frequency, MHz                  | 1000        |
| Attenuation, dB/100ft [dB/100m] | 40 [131.23] |
| Power Handling, Watts           | 32          |

**Frequency 2**

|                                 |              |
|---------------------------------|--------------|
| Frequency, GHz                  | 10           |
| Attenuation, dB/100ft [dB/100m] | 130 [426.51] |
| Power Handling, Watts           | 9            |

**Frequency 3**

|                                 |              |
|---------------------------------|--------------|
| Frequency, GHz                  | 20           |
| Attenuation, dB/100ft [dB/100m] | 190 [623.36] |
| Power Handling, Watts           | 6.5          |

**Mechanical Specifications****Temperature**

|                        |             |
|------------------------|-------------|
| Operating Range, deg C | -55 to +100 |
|------------------------|-------------|

**Inner Conductor**

|                   |                   |
|-------------------|-------------------|
| Number of Strands | 1                 |
| Material          | Copper Clad Steel |
| Plating           | Silver            |
| Diameter, in [mm] | 0.011 [0.28]      |

**Dielectric:**

|                   |              |
|-------------------|--------------|
| Type              | PTFE         |
| Diameter, in [mm] | 0.037 [0.94] |

**Shield:**

|                   |              |
|-------------------|--------------|
| Number of         | 1            |
| Material 1        | Copper       |
| Diameter, in [mm] | 0.047 [1.19] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [047 Semi-rigid Coax Cable with Copper Outer Conductor PE-047SR](#)

## 047 Semi-rigid Coax Cable with Copper Outer Conductor

## TECHNICAL DATA SHEET

PE-047SR

**Jacket:**

|                                       |              |
|---------------------------------------|--------------|
| Diameter, in [mm]                     | 0.047 [1.19] |
| One Time Minimum Bend Radius, in [mm] | 0.05 [1.27]  |
| Weight, lbs/ft [Kg/m]                 | 0.005 [0.01] |

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

|                 |            |
|-----------------|------------|
| RoHS Compliant  |            |
| REACH Compliant | 12/19/2011 |

**Plotted and Other Data**

## Notes:

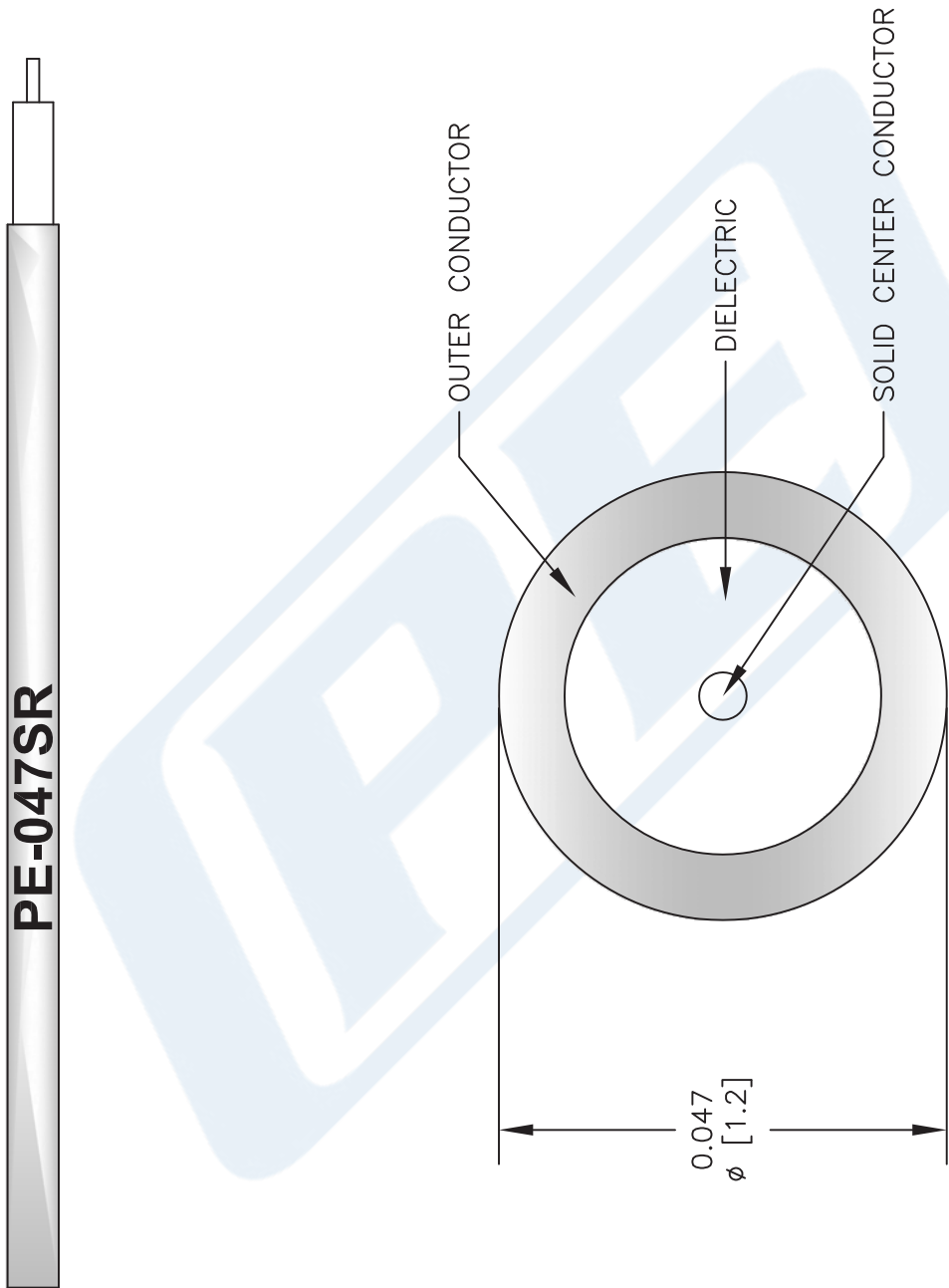
- Values at +25 °C, sea level

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URL: <http://www.pasternack.com/semirigid-0.047-50-ohm-coax-cable-copper-pe-047sr-p.aspx>

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|           |          |       |          |        |
|-----------|----------|-------|----------|--------|
| DWG TITLE | PE-047SR |       |          |        |
|           | FSCM NO. | 53919 | CAD FILE | 073113 |
|           |          |       | SCALE    | N/A    |
|           |          |       | SIZE     | A      |
|           |          |       |          | 2233   |



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