



Mini SMP Female Right Angle Connector Solder
Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44493

Configuration

- Mini SMP Female Connector
- MIL-STD-348A
- 50 Ohms
- Right Angle Body Geometry
- PE-047SR, PE-SR047AL, PE-SR047FL Interface Type
- Solder Attachment

Features

- Max. Operating Frequency 65 GHz
- Gold Plated Beryllium Copper Contact
- Blind Mate Connector

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE44493 Mini SMP female right angle connector with 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 Mini SMP female connector operates up to a maximum frequency of 65 GHz. The Pasternack blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated. Its right angle body geometry allows for easier connections in tight spaces.

Our Mini SMP female right angle connector PE44493 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 | | 65 | GHz |
| Operating Voltage (AC) | | | 325 | Vrms |
| Inner Conductor DC Resistance | | | 6 | mOhms |
| Outer Conductor DC Resistance | | | 2 | mOhms |
| Insulation Resistance | 5,000 | | | MOhms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|---------|---------|----------|----|----|-------|
| Frequency Range | DC to 6 | 6 to 12 | 12 to 18 | | | GHz |
| VSWR, Max | 1.11:1 | 1.23:1 | 1.68:1 | | | |

Electrical Specification Notes:
Insertion loss = $0.05 \times \sqrt{f(\text{GHz})}$ dB max up to 12 GHz.

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 Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44493](#)



Mini SMP Female Right Angle Connector Solder
Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44493

Mechanical Specifications

Size

| | |
|------------|----------------------|
| Length | 0.24 in [6.1 mm] |
| Width/Dia. | 0.136 in [3.45 mm] |
| Height | 0.2 in [5.08 mm] |
| Weight | 0.00073 lbs [0.33 g] |

Material Specifications

| Description | Material | Plating |
|-----------------|------------------|---------|
| Contact | Beryllium Copper | Gold |
| Insulation | PTFE | |
| Outer Conductor | Beryllium Copper | Gold |
| Body | Brass | Gold |

Mechanical Specification Notes:
Mating cycles: 500 (smooth bore), 100 (full detent) minimum.

Environmental Specifications

Temperature

| | |
|-----------------|--------------------------------------|
| Operating Range | -55 to +155 deg C |
| Humidity | MIL-STD-202, Method 106 |
| Shock | MIL-STD-202, Method 213, Condition A |
| Vibration | MIL-STD-202, Method 204, Condition A |
| Thermal Shock | MIL-STD-202, Method 107, Condition B |

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 Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44493](#)



Mini SMP Female Right Angle Connector Solder
Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44493

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

Plotted and Other Data

Notes:

Mini SMP Female Right Angle 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% availability and are part of the broadest selection in the industry.

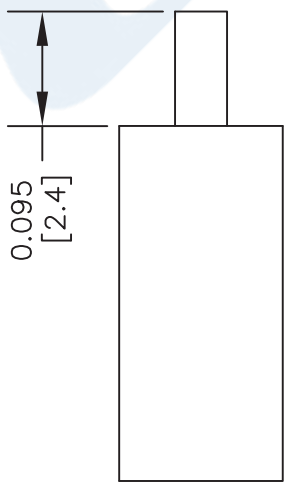
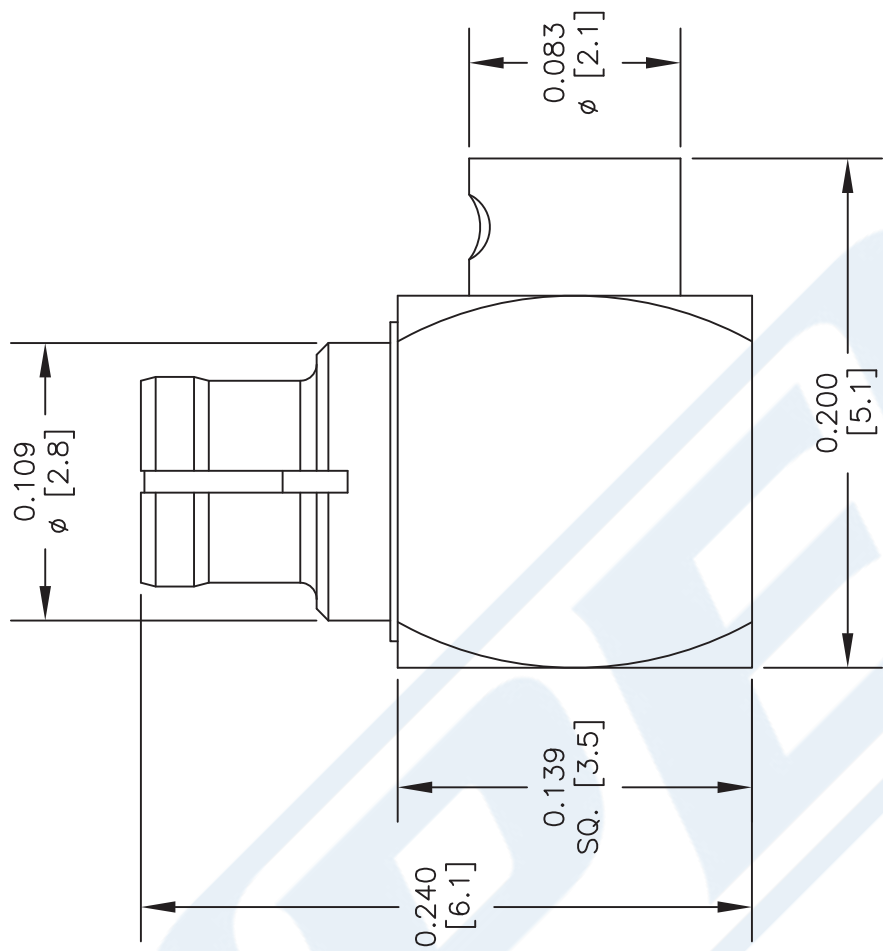
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Mini SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44493](#)

URL: <https://www.pasternack.com/mini-smp-female-standard-pe-047sr-pe-sr047al-pe-sr047fl-connector-pe44493-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.

PE44493 CAD Drawing

Mini SMP Female Right Angle Connector Solder Attachment
for PE-047SR, PE-SR047AL, PE-SR047FL



STRIPPING DIMENSIONS
ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN TIN CENTER CONDUCTOR.
2. INSERT CABLE INTO BODY UNTIL IT STOPS.
3. SOFT SOLDER CONTACT AND OUTER CONDUCTOR, PRESS CAP DOWN.

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
PE44493



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REV. A

FSCM NO. 53919

CAD FILE 081412

SCALE N/A

SIZE A

2233



SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz

RF Connectors Technical Data Sheet

PE45249

Configuration

- SMP Female Connector
- MIL-STD-348A
- 50 Ohms
- Right Angle Body Geometry
- PE-047SR, PE-SR047AL, PE-SR047FL Interface Type
- Solder Attachment

Features

- Max. Operating Frequency 8 GHz
- Excellent VSWR of 1.15:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-DTL-45204
- Blind Mate Connector

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE45249 SMP female right angle connector with 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 SMP female connector operates up to a maximum frequency of 8 GHz and offers excellent VSWR of 1.15:1. The Pasternack blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated. Its right angle body geometry allows for easier connections in tight spaces. Pasternack 8 GHz SMP connectors are designed to offer a low cost alternative where the SMP form factor is desired but the standard SMP frequency range is not needed. The line of 8 GHz SMP connectors is fully compatible with industry standard SMP and GPO® connectors. These SMP connectors offer a low cost high performance blind-mate solution for lower frequency applications. The Male versions of the 8 GHz SMP is available in Full Detent, Limited Detent, and Smooth Bore versions.

Our SMP female right angle connector PE45249 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 | | 8 | GHz |
| VSWR | | | 1.15:1 | |

Mechanical Specifications

| | |
|-------------|--------------------|
| Size | |
| Length | 0.28 in [7.11 mm] |
| Width/Dia. | 0.187 in [4.75 mm] |
| Weight | 0.002 lbs [0.91 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz PE45249](#)



SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz

RF Connectors Technical Data Sheet

PE45249

Material Specifications

| Description | Material | Plating |
|-----------------|------------------|-----------------------|
| Contact | Beryllium Copper | Gold MIL-DTL-45204 |
| Insulation | PTFE | |
| Outer Conductor | Beryllium Copper | Gold |
| Body | Beryllium Copper | Gold MIL-DTL-45204 |

Environmental Specifications

Temperature

Operating Range

-55 to +155 deg C

Humidity

MIL-STD-202, Method 106 (except 7b omitted)

Shock

MIL-STD-202, Method 213, Condition I

Vibration

MIL-STD-202, Method 204, Condition D

Salt Spray

MIL-STD-202, Method 101, Condition B

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

Plotted and Other Data

Notes:

SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz 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: [SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz PE45249](#)

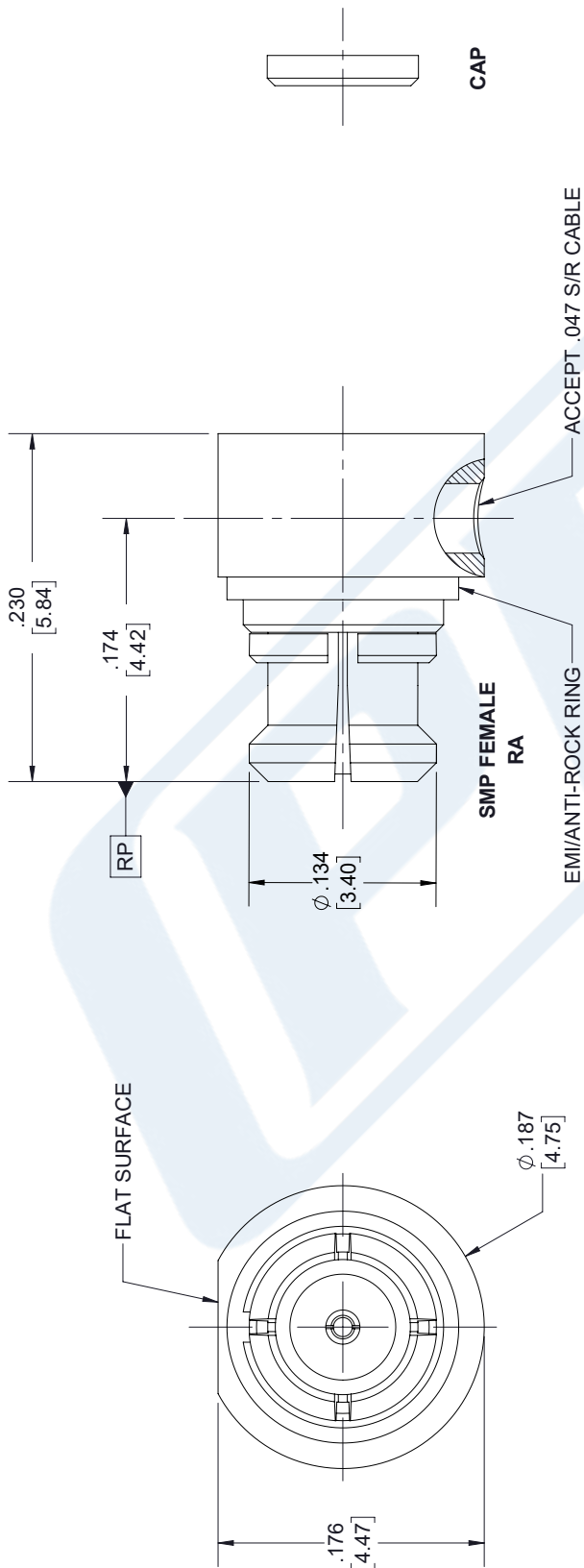
URL: <https://www.pasternack.com/smp-female-pe-047sr-pe-sr047al-pe-sr047fl-connector-pe45249-p.aspx>

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PE45249 CAD Drawing

SMP Female Right Angle Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 8 GHz

| REVISIONS | | | |
|-----------|---------------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| 1.1 | PCR PE45249 2019049 | 04/23/19 | J.GARCIA |



CAP

SMP FEMALE
RA

EMI/ANTI-ROCK RING

ACCEPT .047 S/R CABLE

STRIPPING DIMENSIONS

NOTES:

- CABLE ATTACHMENT:
 - OUTER: SOLDER.
 - INNER: SOLDER.

| | |
|---|-------------|
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS | |
| TOLERANCES: | FRACTIONS |
| X±.2 [5.08] | ±.132 |
| XX±.01 [.25] | ±.132 |
| XXX±.005 [.13] | ANGLES ± 1° |
| ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. | |
| THIRD-ANGLE PROJECTION | |



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|------|-------|----------|-------------|-----|
| SIZE | CAGE | DRAWN BY | PART NUMBER | REV |
| A | 53919 | K.DANG | PE45249 | 1.1 |

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| SHEET | 1 OF 1 |
| SCALE | N/A |

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Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

RF Cables Technical Data Sheet

PE-SR047FL

Configuration

- Formable Cable
- 1 Shield(s)

Features

- Dimensionally and electrically the same as standard, solid outer conductor semi-rigid coax
- May be formed by hand and does not require special tools to bend
- May be formed more than once without damaging the outer conductor
- Tinned Copper Braid Outer Conductor
- Max Frequency 20 GHz

Applications

- Test and Measurement
- Communication Systems
- Wireless Systems
- Medical Equipment
- RADAR
- Low Loss Applications

Description

Formable semi-rigid coaxial cable is a hand formable version of standard semi-rigid that does not require complicated and costly preformed cable assemblies. Because the dimensions and electrical characteristics are so closely matched to semi-rigid coax, standard semi-rigid connectors can be used. Pasternack's PE-SR047FL is a formable .047 semi-rigid coax cable with tinned copper braid outer conductor, providing low loss and excellent RF shielding effectiveness. This semi-flexible cable has an FEP jacket to reduce the chance of shorting exposed contacts or circuit conductors. Pasternack's formable cable can be used as an alternative to semi-rigid coaxial cable in applications where flexibility is required without giving up high electrical performance level. PE-SR047FL datasheet specifications and outline drawing for this .047 semi-flexible hand formable cable are shown in the PDF below.

Pasternack carries a wide range of cables ready to ship same day to fit your needs. They are available in corrugated, flexible, formable or semi-rigid versions with different constructions of conductor materials, dielectric materials, shielding configurations and jacket materials. Our cables are designed to fit a wide range of performance criteria including attenuation, operating temperature, environmental factor, and power capability.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|-------------|---------|--------------|
| Frequency Range | DC | | 20 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 69.5 | | % |
| Inner Conductor DC Resistance | | | 207 | Ohms/1000ft |
| Outer Conductor DC Resistance | | | 8 | Ohms/1000ft |
| Nominal Capacitance | | 32 [104.99] | | pF/ft [pF/m] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor PE-SR047FL](#)

Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

RF Cables Technical Data Sheet

PE-SR047FL

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|------------------|-------|--------|--------|--------|--------|----------|
| Frequency | 0.5 | 1 | 3 | 5 | 10 | GHz |
| Attenuation, Typ | 25 | 36 | 65 | 86 | 128 | dB/100ft |
| | 82.02 | 118.11 | 213.25 | 282.15 | 419.95 | dB/100m |

| Description | F6 | F7 | F8 | F9 | F10 | Units |
|------------------|-------|--------|----|----|-----|----------|
| Frequency | 15 | 20 | | | | GHz |
| Attenuation, Typ | 162 | 192 | | | | dB/100ft |
| | 531.5 | 629.92 | | | | dB/100m |

Mechanical Specifications

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|----------------------------|------------------|
| Inner Conductor | Copper Clad Steel, Silver1 | 0.011 in 0.28 mm |
| Conductor Type | Solid | |
| Dielectric | PTFE | 0.034 in 0.86 mm |
| Outer Conductor | Tinned Copper Braid | 0.047 in 1.19 mm |

Environmental Specifications

Temperature

Operating Range

-40 to +100 deg C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor PE-SR047FL](#)

Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

RF Cables Technical Data Sheet

PE-SR047FL

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

Plotted and Other Data

Notes:

Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor 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.

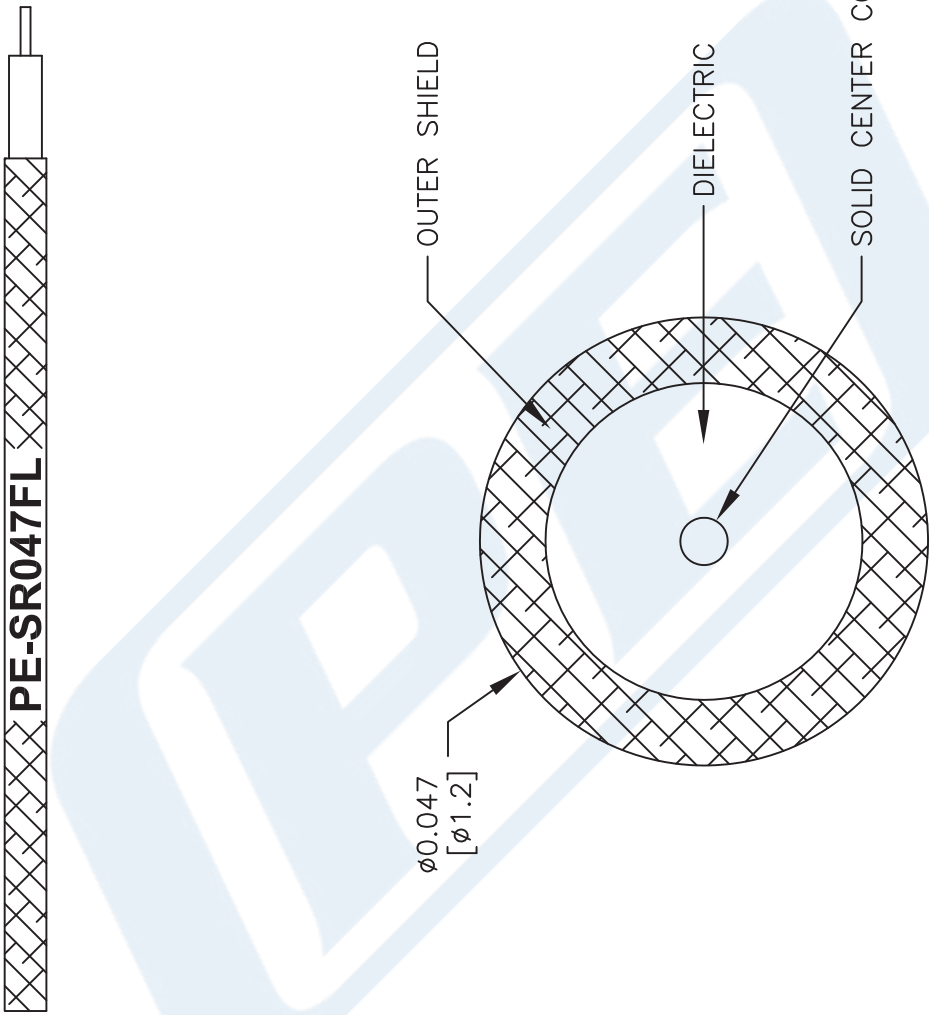
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor PE-SR047FL](#)

URL: <https://www.pasternack.com/formable-0.047-semirigid-replacement-50-ohm-coax-cable-tinned-braid-pe-sr047fl-p.aspx>

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PE-SR047FL CAD Drawing

Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor



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].

DWG TITLE
PE-SR047FL

FSCM NO. 53919

CAD FILE 111716

SCALE N/A

SIZE A

41742

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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