

3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402



RF Connectors Technical Data Sheet

PE4981

Configuration

- 3.5mm Male Connector
- 50 Ohms
- Straight Body Geometry
- PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-

SR402TN, RG402 Interface Type

- Clamp/Solder Attachment
- 5/16 inch Hex

Features

- Max. Operating Frequency 34 GHz
- Excellent VSWR of 1.2:1

- Gold over Nickel Plated Beryllium Copper Contact
- 50 μ in minimum contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE4981 3.5mm male connector with clamp/solder attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN and RG402 is part of our full line of RF components available for same-day shipping. Our 3.5mm male connector operates up to a maximum frequency of 34 GHz and offers excellent VSWR of 1.2:1.

Our 3.5mm male connector PE4981 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 | | 34 | GHz |
| VSWR | | | 1.2:1 | |
| Insertion Loss | | 0.233 | | dB |
| Operating Voltage (AC) | | 500 | | Vrms |
| Dielectric Withstanding Voltage (AC) | | 1,500 | | Vrms |
| High Potential Voltage | | | 1,000 | Vrms |
| 5 to 7.5 MHz | | | | |
| Corona Discharge @ 70000 ft | | | 375 | Vrms |
| Insulation Resistance | 5,000 | | | MOhms |
| RF Leakage | -90 | | | dB |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402 PE4981](#)

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RF Connectors Technical Data Sheet

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Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|------------|--------------|------------|----|----|-------|
| Frequency Range | DC to 12.4 | 12.4 to 26.5 | 26.5 to 34 | | | GHz |
| VSWR, Max | 1.1:1 | 1.14:1 | 1.2:1 | | | |

Electrical Specification Notes:
Insertion Loss is $0.04 * \text{sqrt}(F(\text{GHz}))$ dB

Mechanical Specifications

Size

Length
Width/Dia.

0.86 in [21.84 mm]
0.32 in [8.13 mm]

Weight

0.012 lbs [5.44 g]

Mating Cycles
Mating Torque

500 Cycles
8 to 10 in-lbs [0.90 to 1.13 Nm]

Material Specifications

| Description | Material | Plating |
|--------------|----------------------------|---|
| Contact | Beryllium Copper | Gold over Nickel 50 μ in minimum |
| Insulation | PCTFE | |
| Body | Passivated Stainless Steel | SAE-AMS-2700 |
| Coupling Nut | Passivated Stainless Steel | SAE-AMS-2700 |
| Gasket | Silicone Rubber | |

Environmental Specifications

Temperature

Operating Range

-65 to +150 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

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3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402

RF Connectors
Technical Data Sheet

PE4981

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

Plotted and Other Data

Notes:



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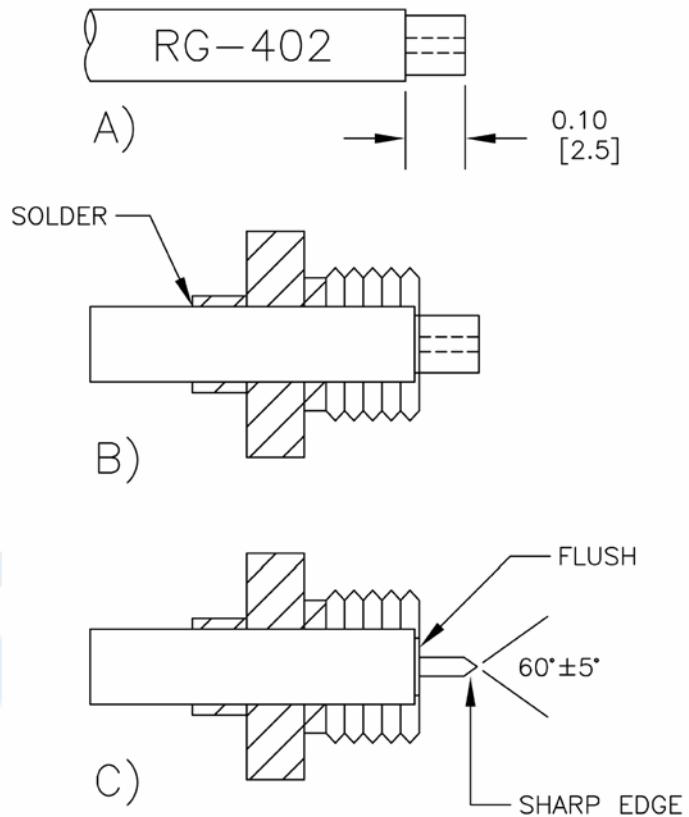
3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402



RF Connectors
Technical Data Sheet

PE4981

Assembly Instruction



ASSEMBLY PROCEDURES

1. STRIP CALBE AS SHOWN IN (A). DO NOT NICK CENTER DIELECTRIC.
2. INSERT CABLE THROUGH CLAMP NUT AS SHOWN IN (B). SOLDER OUTER CONDUCTOR TO CLAMP NUT.
3. TRIM DIELECTRIC AND POINT CENTER CONDUCTOR AS SHOWN IN (C).
4. INSERT CABLE SUB-ASSEMBLY INTO CONNECTOR UNTIL SEATED AND TORQUE TO 25-30 IN-LBS.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR-402FLJ, PE-SR402TN, RG402 PE4981](#)



3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402

RF Connectors Technical Data Sheet

PE4981

3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL, PE-SR402FL, PE-SR402FLJ, PE-SR402TN, RG402 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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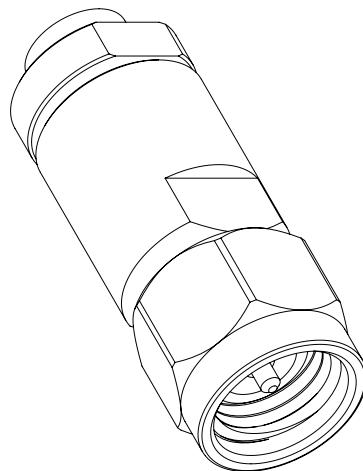
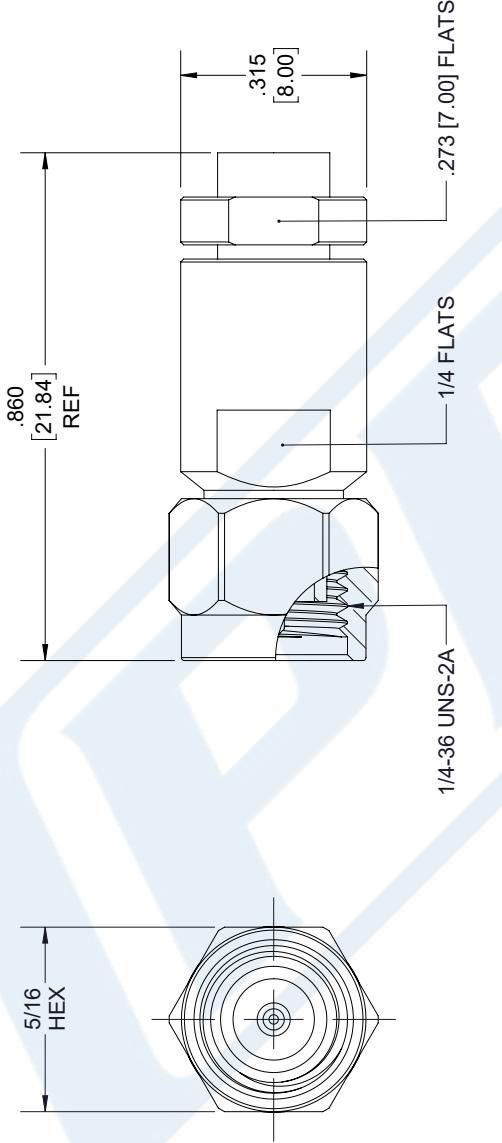
URL: <https://www.pasternack.com/3.5mm-male-pe-sr402al-pe-sr402fl-pe-sr402tn-rg402-connector-pe4981-p.aspx>

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.

PE4981 CAD Drawing

3.5mm Male Connector Clamp/Solder Attachment for PE-SR402AL,
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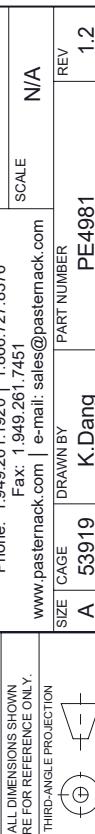
| REVISIONS | | | | |
|-----------|--------------------|----------|----------|--|
| REV. | DESCRIPTION | DATE | APPROVED | |
| 1.2 | PCR PE4981 2019056 | 05/13/19 | J.GARCIA | |



| | |
|---|---------|
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| SCALE | 1 OF 2 |
| SIZE | N/A |
| CAGE | PE4981 |
| A | 53919 |
| K.Dang | |
| | REV 1.2 |

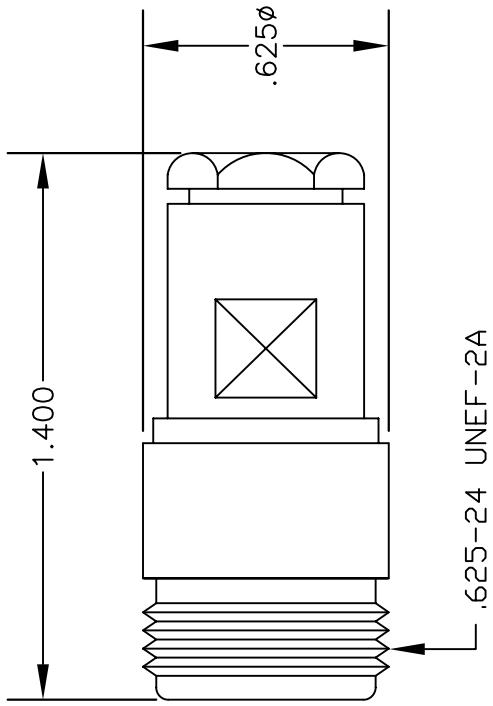
UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS
TOLERANCES:
X=± .2 [5.08] FRACTIONS
.XX=± .01 [.25] ± 1/32
XXX=± .005 [.13] ANGLES ± 1°

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.
THIRD-ANGLE PROJECTION



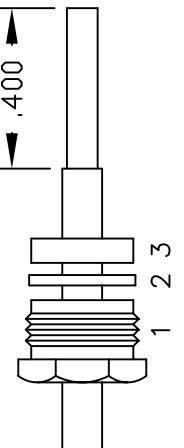
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| MATERIALS | |
|----------------|---------------------|
| BODY | BRASS NICKEL PLATED |
| CONTACT | SILVER PLATED |
| INSULATOR | PTFE |
| SOLDER ADAPTER | BRASS GOLD PLATED |

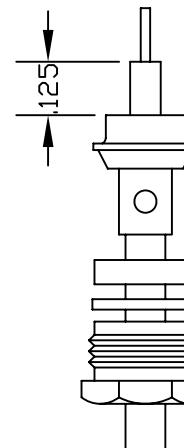


ASSEMBLY PROCEDURES

1. SLIDE CLAMP NUT (1), WASHER (2) & GASKET (3) OVER CABLE. STRIP CABLE AS SHOWN IN ASSEMBLY (A). DO NOT CUT DIELECTRIC.
2. SLIDE ADAPTER (4) OVER CABLE UNTIL ADAPTER (4) BOTTOMS ON OUTER CONDUCTOR. SOLDER ADAPTER (4) TO OUTER CONDUCTOR USING MINIMUM HEAT.
3. STRIP CABLE AS SHOWN IN ASSEMBLY (B). SOLDER CONTACT TO CENTER CONDUCTOR. SLIDE ASSEMBLY FORWARD & TIGHTEN TO BODY.



ASSEMBLY (A)



4

ASSEMBLY (B)

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DES. N FEMALE SOLDER/CLAMP ATTACHMENT
FOR RG402, PE-SR402AL & PE-SR402FL

DWG TITLE **PE4138** REV. - **F** FSCM NO. **53919** CAD FILE **042309** SCALE **N/A** SIZE **A** **147**

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.



Formable 141 Semirigid Coax Cable with Tinned Braid Outer Conductor and Black FEP Jacket

RF Cables Technical Data Sheet

PE-SR402FLJ

Configuration

- Formable Cable

Features

- Dimensionally the same as standard solid outer conductor semi-rigid coax
- Standard semi-rigid connectors can be used
- Cable is hand formable and does not require special tools to bend
- Connectors are easily soldered to Tin soaked outer conductor
- Cable can be formed more than once without damage to outer conductor
- High RF Shielding >100 dB

Description

Formable semi-rigid coax is a hand formable version of standard semi-rigid that does not require complicated and costly pre-formed cable assemblies. Because the dimensions and electrical characteristics are so closely matched to semi-rigid coax, standard semi-rigid connectors can be used. The tin soaked copper braid outer shield provides excellent RF shielding. FEP Jacket reduces the chance of shorting exposed contacts or circuit conductors.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|------------|---------|--------------|
| Frequency Range | DC | | 34 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 70 | | % |
| Time Delay | | 1.43 4.69 | | ns/ft ns/m |
| Shielding Effectiveness | 100 | | | dB |
| Operating Voltage (AC) | | | 1,900 | Vrms |
| Dielectric Withstanding Voltage (AC) | | | 3,000 | Vrms |
| Inner Conductor DC Resistance | | | 8.23 | Ohms/1000ft |
| Nominal Capacitance | | 29 [95.14] | | pF/ft [pF/m] |
| Insulation Resistance | 1,524 | | | MOhms/1000ft |

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|--------|--------|--------|----------|
| Frequency | 0.5 | 1 | 5 | 10 | 20 | GHz |
| Attenuation, Typ | 8.23 | 12.5 | 32 | 48.158 | 73.152 | dB/100ft |
| | 27 | 41.01 | 104.99 | 158 | 240 | dB/100m |
| Input Power (CW), Max | 436.5 | 303.4 | 126.7 | 85.5 | 56.6 | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Formable PE-SR402FLJ Coax Cable with Tinned Copper Braid Outer Conductor and Black FEP Jacket PE-SR402FLJ](#)



Formable 141 Semirigid Coax Cable with Tinned Braid Outer Conductor and Black FEP Jacket

RF Cables Technical Data Sheet

PE-SR402FLJ

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.161 in [4.09 mm] |
| Weight | 0.032 lbs/ft [0.05 Kg/m] |
| Min. Bend Radius (Installation) | 0.315 in [8 mm] |
| Min. Bend Radius (Repeated) | 1.575 in [40.01 mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|----------------------|--------------------|
| Inner Conductor | Copper, Silver1 | 0.036 in 0.91 mm |
| Conductor Type | Solid | |
| Dielectric | PTFE | 0.117 in 2.97 mm |
| Outer Conductor | Tinned Copper Braid | 0.139 in 3.53 mm |
| Jacket | FEP, Black | 0.161 in [4.09 mm] |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -65 to +150 deg C |
| Storage Range | 10 to +35 deg C |

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

Plotted and Other Data

Notes:

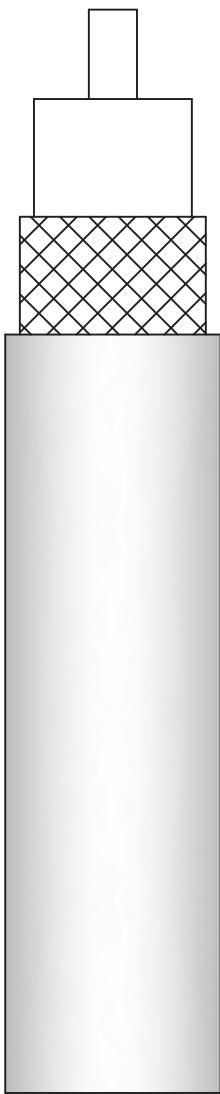
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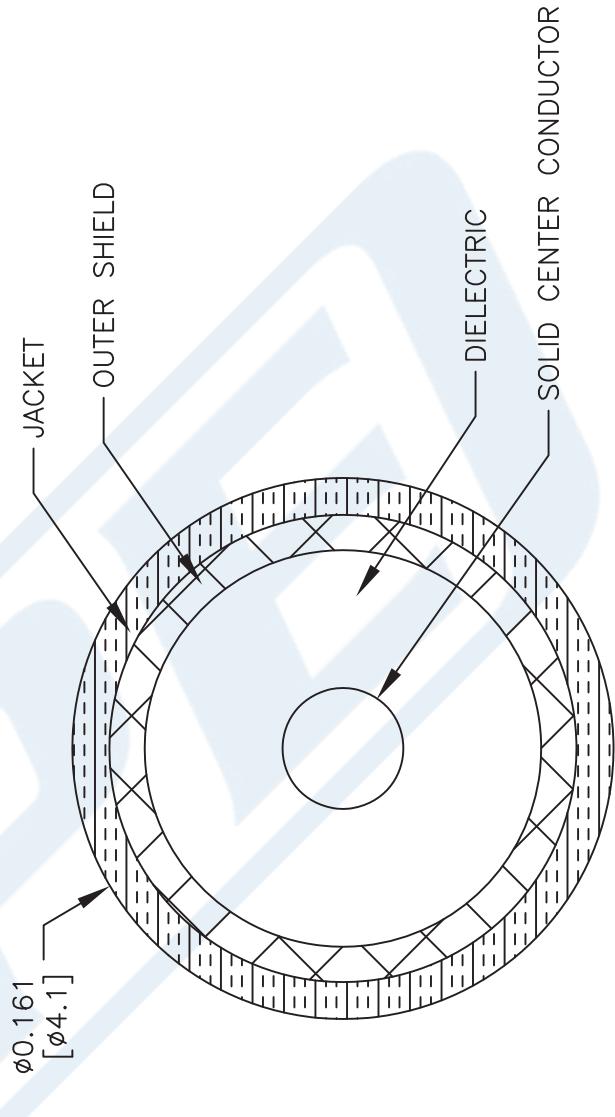
URL: <https://www.pasternack.com/50-ohm-formable-141-semirigid-tinned-braid-outer-conductor-fep-jacket-black-pe-sr402flj-p.aspx>

PE-SR402FLJ CAD Drawing

Formable 141 Semirigid Coax Cable with Tinned Braid
Outer Conductor and Black FEP Jacket



PE-SR402FLJ



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THE ENGINEER'S RF SOURCE

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Website: www.pasternack.com | E-Mail: sales@pasternack.com

PE-SR402FLJ

DWG TITLE

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| FSCM NO. | CAD FILE | SCALE | SIZE | A |
|----------|----------|-------|------|-------|
| 53919 | 111716 | N/A | A | 41742 |