



SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196, .235 inch D Hole

RF Connectors Technical Data Sheet

PE4422

Configuration

- SMA Female Connector
- MIL-STD-348
- 50 Ohms
- Straight Body Geometry
- RG178, RG196 Interface Type
- Crimp/Solder Attachment
- Bulkhead

Features

- Gold Plated Contact
- Contact plating according to MIL-G-45204

Applications

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

Description

Pasternack's PE4422 SMA female bulkhead connector with crimp/solder attachment for RG178 and RG196 (.235 inch D hole) is part of our full line of RF components available for same-day shipping. This SMA bulkhead connector allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Our SMA female bulkhead connector PE4422 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.

Mechanical Specifications

Size

| | |
|------------|--------------------|
| Length | 1.25 in [31.75 mm] |
| Width/Dia. | 0.312 in [7.92 mm] |
| Weight | 0.013 lbs [5.9 g] |

Material Specifications

| Description | Material | Plating |
|-------------|----------|---------------------|
| Contact | | Gold MIL-G-45204 |
| Insulation | PTFE | |
| Body | Brass | Nickel QQ-N-290 |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196, .235 inch D Hole PE4422](#)



SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196, .235 inch D Hole

RF Connectors Technical Data Sheet

PE4422

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

Plotted and Other Data

Notes:

SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196, .235 inch D Hole 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.

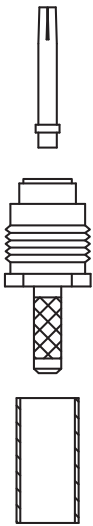
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196, .235 inch D Hole PE4422](#)

URL: <https://www.pasternack.com/sma-female-standard-rg178-rg196-connector-pe4422-p.aspx>

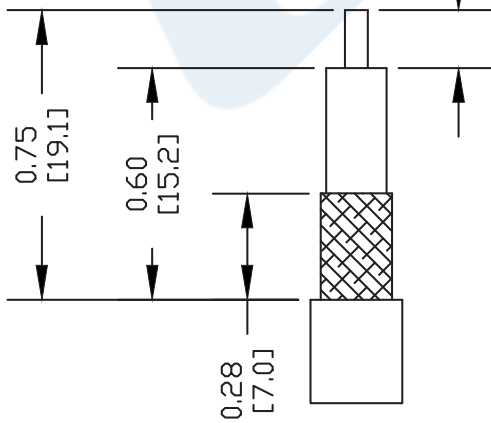
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

PE4422 CAD Drawing

SMA Female Bulkhead Mount Connector Crimp/Solder
Attachment for RG178, RG196, .235 inch D Hole



1
2
3



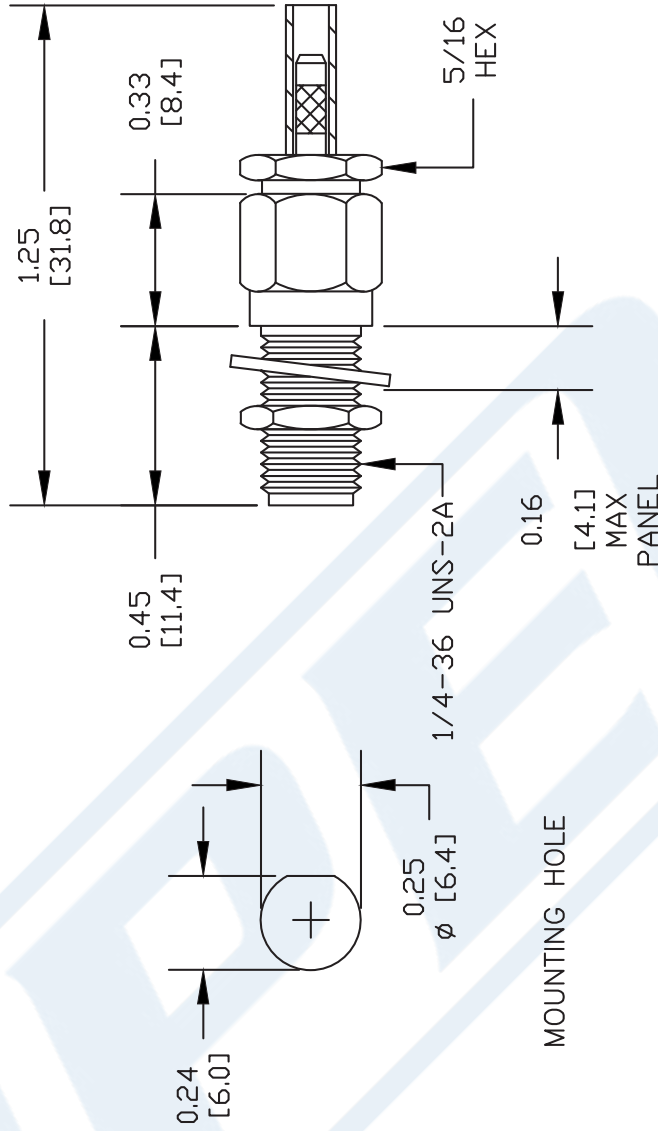
STRIPPING DIMENSIONS

ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN. DO NOT NICK CENTER CONDUCTOR. TIN CENTER CONDUCTOR.
2. SLIDE FERRULE (1) OVER CABLE. FLAIR BRAID & SLIDE CLAMP NUT (2) UNDER BRAID WITH CENTER CONDUCTOR PROTRUDING THROUGH HOLE IN INSULATOR. SLIDE FERRULE (1) OVER BRAID & AGAINST CLAMP NUT (2). CRIMP FERRULE.
3. SOLDER CONTACT TO CENTER CONDUCTOR. CLEAN, INSERT CABLE ASSEMBLY INTO BODY & TIGHTEN.

CRIMP SIZE REQUIRED

CONTACT: SOLDER
FERRULE: .100" HEX CRIMP TOOL



DWG TITLE

PE4422

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.

REV. A

FSCM NO. 53919

CAD FILE 082908

SCALE N/A

SIZE A

127



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SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet

PE45490

Configuration

- SSMC Plug Connector
- 50 Ohms
- Straight Body Geometry
- RG178, RG196 Interface Type
- Crimp/Solder Attachment

Features

- Max. Operating Frequency 12.4 GHz
- Good VSWR of 1.44:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-G-45204
- Reliable threaded coupling
- Small SSMC connector form factor (50% smaller than SMA, radially)
- IEC 60169-20 SSMC connector interface
- In stock and ready to ship

Applications

- General Purpose Test
- Custom Cable Assemblies
- Avionics
- A/D Modules
- Data Acquisition
- Software defined radio (SDR)
- RADAR/SONAR
- Ultra Wideband Digital Receivers
- Medical equipment

Description

Pasternack's PE45490 SSMC plug connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SSMC plug connector operates up to a maximum frequency of 12.4 GHz and offers good VSWR of 1.44:1.

Our SSMC plug connector PE45490 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 | | 12.4 | GHz |
| VSWR | | | 1.44:1 | |
| Insertion Loss | | | 0.3 | dB |
| Operating Voltage (AC) | | | 250 | Vrms |
| High Potential Voltage 5 MHz | | | 400 | Vrms |
| Inner Conductor DC Resistance | | | 4 | mOhms |
| Outer Conductor DC Resistance | | | 1 | mOhms |
| Insulation Resistance | 1,000 | | | MOhms |
| RF Leakage | -50 | | | dB |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490](#)



SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet

PE45490

Mechanical Specifications

| | |
|---------------|------------------------------------|
| Size | |
| Length | 0.7 in [17.78 mm] |
| Width/Dia. | 0.156 in [3.96 mm] |
| Mating Cycles | 500 Cycles |
| Mating Torque | 1.75 to 2 in-lbs [0.20 to 0.23 Nm] |

Material Specifications

| Description | Material | Plating |
|--------------|------------------|---------------------|
| Contact | Beryllium Copper | Gold MIL-G-45204 |
| Insulation | Teflon | |
| Body | Beryllium Copper | Gold MIL-G-45204 |
| Coupling Nut | Beryllium Copper | Gold MIL-G-45205 |
| Crimp Sleeve | Brass | Gold MIL-G-45204 |

Environmental Specifications

| | |
|--------------------|---|
| Temperature | |
| Operating Range | -65 to +165 deg C |
| Shock | Method 213, Condition B, 75G @6ms @1/2 sine |
| Vibration | Method 204, Condition D (20G) |
| Salt Spray | Method 101, Condition B, 5% salt solution |

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

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490](#)



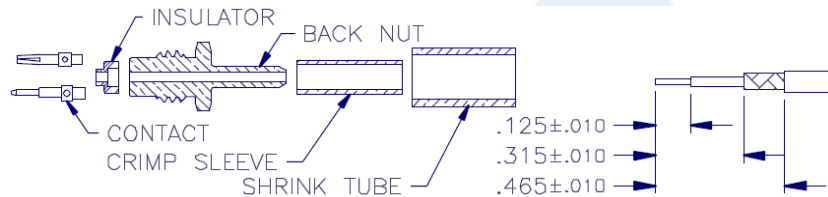
SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors
Technical Data Sheet

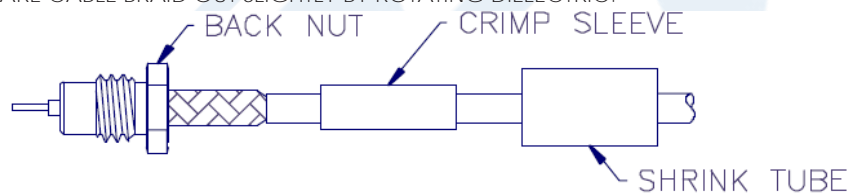
PE45490

Assembly Instruction

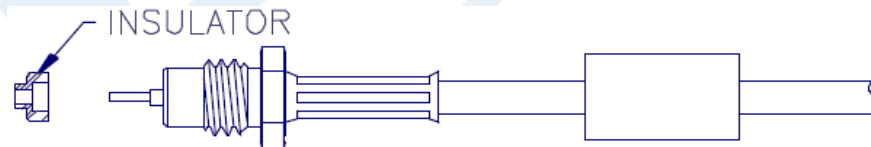
Assembly Instructions



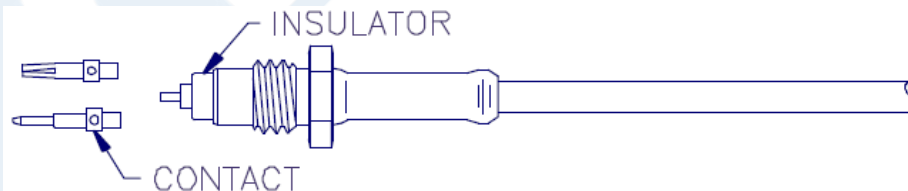
1. TRIM CABLE AS SHOWN ABOVE. TIN END OF CENTER CONDUCTOR.
2. SLIDE CRIMP SLEEVE AND SHRINK TUBE (IF SUPPLIED) OVER CABLE JACKET.
3. FLARE CABLE BRAID OUT SLIGHTLY BY ROTATING DIELECTRIC.



4. INSERT CABLE INTO TAIL-END OF BACK NUT, MAKING SURE TAIL GOES OVER DIELECTRIC AND UNDER BRAID. SLIDE IN UNTIL BRAID TOUCHES REAR SURFACE OF NUT.
5. SLIDE CRIMP SLEEVE FORWARD AND USE .105 HEX DIE TO CRIMP.



6. POSITION INSULATOR OVER CABLE DIELECTRIC AND CENTER CONDUCTOR.



7. SOLDER CONTACT TO CENTER CONDUCTOR.
8. INSERT CABLE ASSEMBLY INTO BODY AND TIGHTEN NUT WITH A TORQUE WRENCH WITH A TORQUE OF 35-45 INCH-OUNCES.
9. SLIDE SHRINK TUBE (IF SUPPLIED) OVER CRIMP SLEEVE AND SHRINK TO FIT.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490](#)



SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet

PE45490

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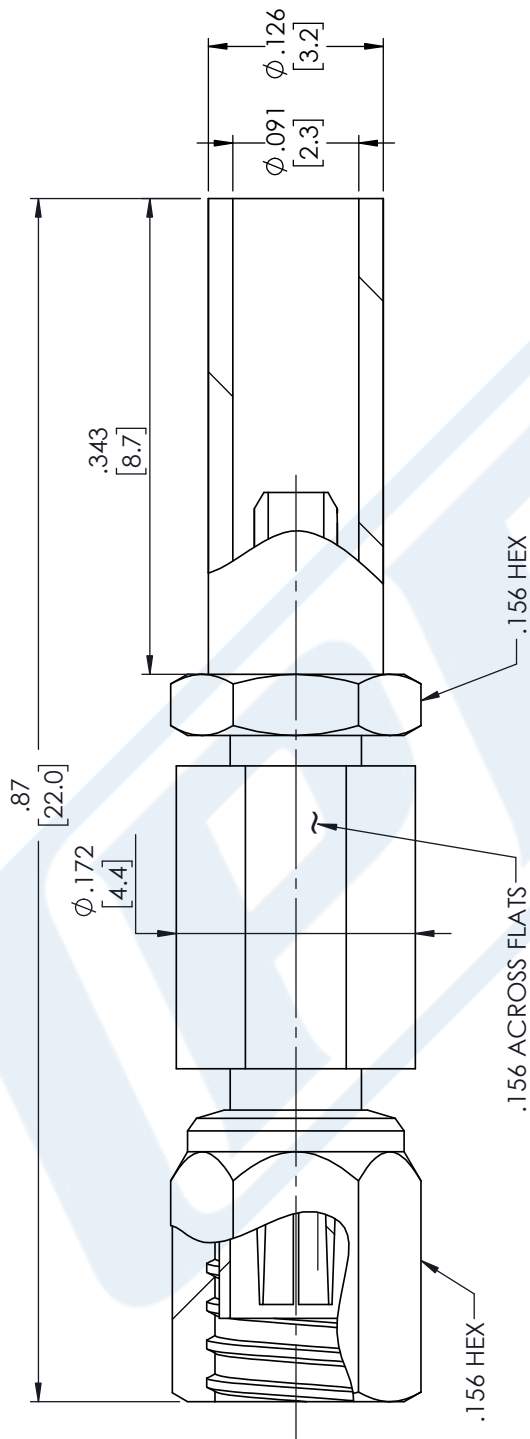
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URL: <https://www.pasternack.com/ssmc-plug-rg178-rg196-connector-pe45490-p.aspx>

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PE45490 CAD Drawing

SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196



| STANDARD TOLERANCES | |
|---------------------|-------------|
| .X | ± 0.2 |
| .XX | ± 0.01 |
| .XXX | ± 0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE
 PE45490

CAGE CODE 53919

NOTES:
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 3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE 052217

SCALE N/A

SIZE A

CN2245

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

RF Cables Technical Data Sheet

RG178B/U

Configuration

- Flexible Cable
- 1 Shield(s)

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 3 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 70 | | % |
| Operating Voltage (AC) | | | 1,000 | Vrms |
| Nominal Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|------------------|-------|-------|-------|--------|----|----------|
| Frequency | 0.1 | 0.4 | 1 | 3 | | GHz |
| Attenuation, Typ | 13.81 | 27.8 | 44.41 | 78.4 | | dB/100ft |
| | 45.31 | 91.21 | 145.7 | 257.22 | | dB/100m |

Mechanical Specifications

| | |
|-----------------------------|--------------------------|
| Diameter | 0.072 in [1.83 mm] |
| Weight | 0.005 lbs/ft [0.01 Kg/m] |
| Min. Bend Radius (Repeated) | 0.4 in [10.16 mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|--------------------------------------|--------------------|
| Inner Conductor | Copper Clad Steel, Silver, 7 Strands | 0.012 in [0.3 mm] |
| Conductor Type | Stranded | |
| Dielectric | PTFE | 0.034 in [0.86 mm] |
| First Shield | Silver Plated Copper Braid | 0.051 in [1.3 mm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

RF Cables Technical Data Sheet

RG178B/U

| | | |
|--------|----------|--------------------|
| Jacket | FEP, Tan | 0.072 in [1.83 mm] |
|--------|----------|--------------------|

Environmental Specifications

Temperature

Operating Range -55 to +200 deg C

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

Plotted and Other Data

Notes:

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket 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: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

URL: <https://www.pasternack.com/flexible-0.075-rg178-50-ohm-coax-cable-fep-jacket-rg178b-u-p.aspx>

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RG178B/U CAD Drawing

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket



NOTES:
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3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
RG178B/U

CAGE CODE 53919

CAD FILE 062117

SCALE N/A

SIZE A

2233

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