

## SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS

### PE45492



#### Configuration

- SSMC Plug Connector
- 50 Ohms

- Straight Body Geometry
- Connector Interface Types: RG188-DS, RG316-DS

#### Features

- Max. Operating Frequency 12.4 GHz
- Good VSWR of 1.5:1
- 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 PE45492 SSMC Plug Connector Crimp/Solder Attachment for RG188-DS and RG316-DS Cable 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 1.5:1.

Our SSMC plug connector PE45492 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                            |         |         | 1.5:1   |       |
| Insertion Loss                  |         |         | 0.3     | dB    |
| Operating Voltage (AC)          |         |         | 250     | Vrms  |
| High Potential Voltage<br>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    |

## SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS

**PE45492**



### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------|---------|---------|---------|-------|
| Impedance   |         | 50      |         | Ohms  |

### Mechanical Specifications

#### Size

|               |                                      |
|---------------|--------------------------------------|
| Length        | 0.9 in [22.86 mm]                    |
| Width         | 0.156 in [3.96 mm]                   |
| Height        | 0.156 in [3.96 mm]                   |
| Weight        | 0.007 lbs [3.18 g]                   |
| 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<br>MIL-G-45204 |
| Insulation   | Teflon           |                     |
| Body         | Beryllium Copper | Gold<br>MIL-G-45204 |
| Coupling Nut | Beryllium Copper | Gold<br>MIL-G-45207 |
| Crimp Sleeve | Brass            | Gold<br>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:

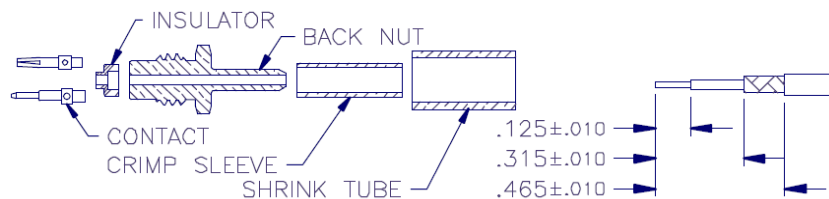
## SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS

**PE45492**

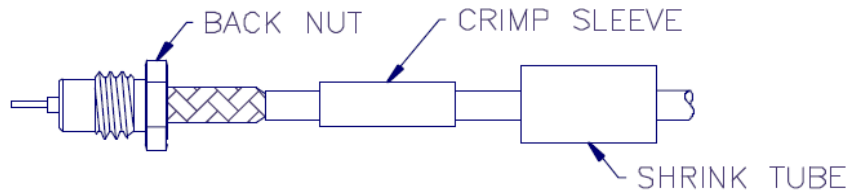


### Assembly Instruction

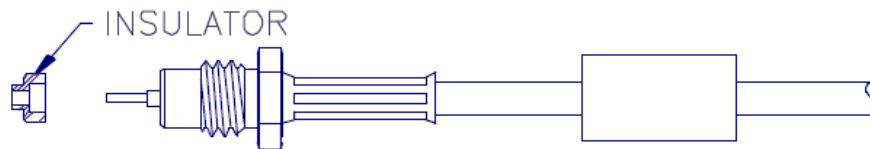
#### Assembly Instructions



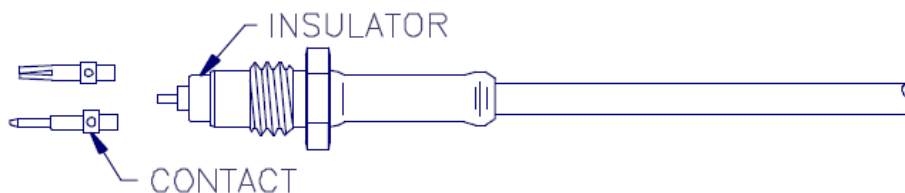
1. TRIM CABLE AS SHOWN ABOVE. TIN END OF CENTER CONDUCTOR.
2. SLIDE CRIMP SLEEVE AND SHRINK TUBE (IF SUPPLIED) OVER CABLE JACKET.
3. FLARE CABLE BRAID OUT SLIGHTLY BY ROTATING DIELECTRIC.



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.

## SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS

**PE45492**



SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS 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.

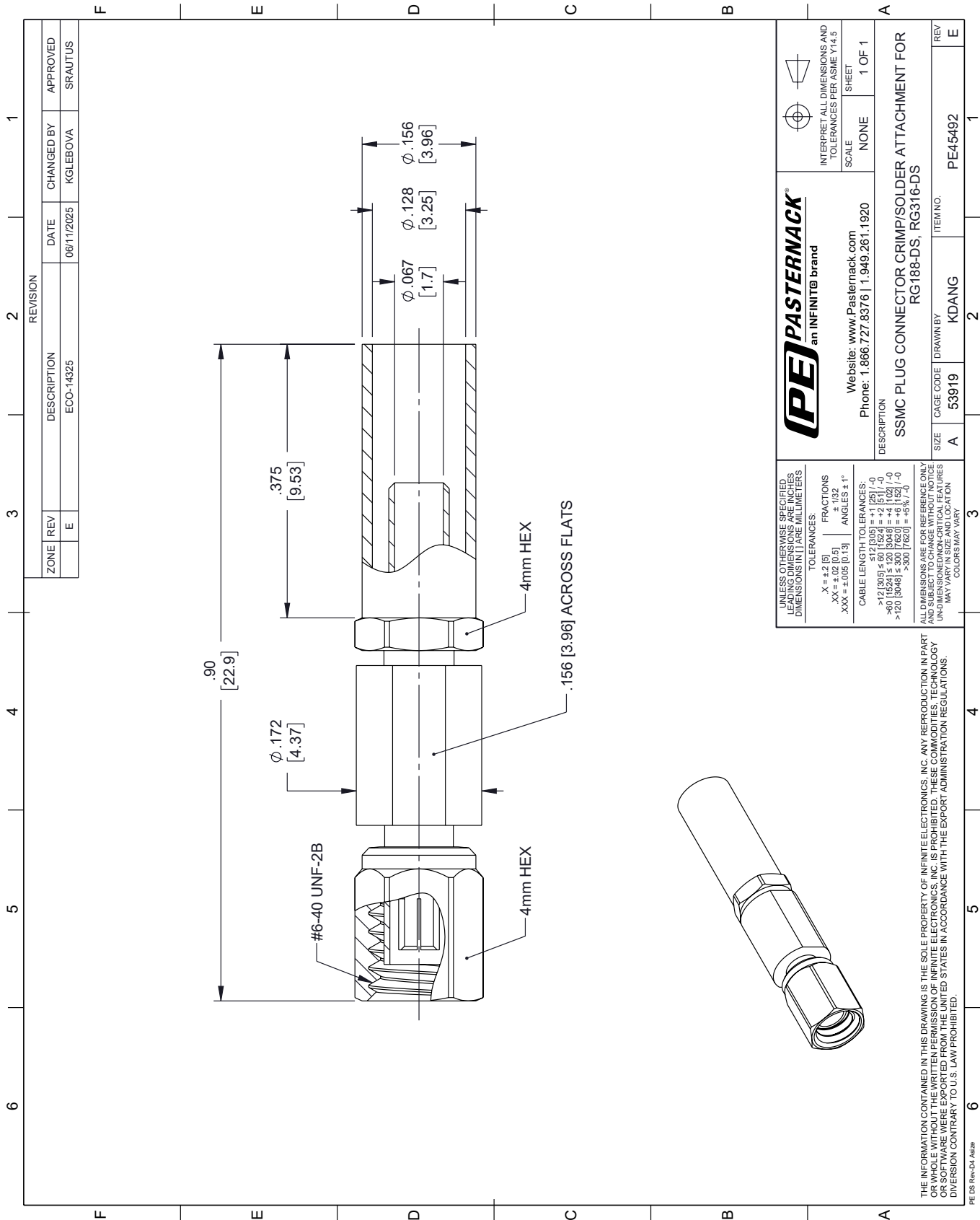
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS PE45492](https://www.pasternack.com/ssmc-plug-rg188-ds-rg316-ds-connector-pe45492.html)

URL: <https://www.pasternack.com/ssmc-plug-rg188-ds-rg316-ds-connector-pe45492.html>

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PE45492 CAD Drawing

SSMC Plug Connector Crimp/Solder Attachment for RG188-DS, RG316-DS





SMB Jack Bulkhead Mount Connector Crimp/  
Solder Attachment for RG188-DS, RG316-DS

TECHNICAL DATA SHEET

PE45159

**Configuration**

|                                    |                    |
|------------------------------------|--------------------|
| Connector                          | SMB Jack           |
| Connector Specification            | MIL-STD-348A       |
| Connector Interface Type           | RG188-DS, RG316-DS |
| Attachment Method (Shield/Contact) | Crimp/Solder       |
| Body Style                         | Straight           |
| Mount Method                       | Bulkhead           |

**Electrical Specifications**

|                                 |             |
|---------------------------------|-------------|
| Frequency Range                 | DC to 4 GHz |
| Impedance                       | 50 Ohms     |
| Maximum Operating Voltage       | 335 Volts   |
| Dielectric Withstanding Voltage | 1,000 Vrms  |

**Mechanical Specifications**

|                    |                   |
|--------------------|-------------------|
| <b>Temperature</b> |                   |
| Operating Range    | -65 to +165 deg C |

**Size**

|            |                    |
|------------|--------------------|
| Length     | 1 in [25.4 mm]     |
| Width/Dia. | 0.25 in [6.35 mm]  |
| Weight     | 0.005 lbs [2.27 g] |

**Connector**

|                               |                  |
|-------------------------------|------------------|
| Type                          | SMB Jack         |
| Contact Material and Plating  | Brass, Gold      |
| Contact Plating Specification | 30μ in. minimum  |
| Body Material and Plating     | Brass, Nickel    |
| Body Plating Specification    | 100μ in. minimum |
| Dielectric Type               | Teflon           |

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

|                 |            |
|-----------------|------------|
| RoHS Compliant  |            |
| REACH Compliant | 06/18/2012 |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMB Jack Bulkhead Mount Connector Crimp/Solder Attachment for RG188-DS, RG316-DS PE45159](#)



## SMB Jack Bulkhead Mount Connector Crimp/ Solder Attachment for RG188-DS, RG316-DS

### TECHNICAL DATA SHEET

PE45159

#### Plotted and Other Data

Notes:

- Values at +25 °C, sea level

SMB Jack Bulkhead Mount Connector Crimp/Solder Attachment for RG188-DS, RG316-DS 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.

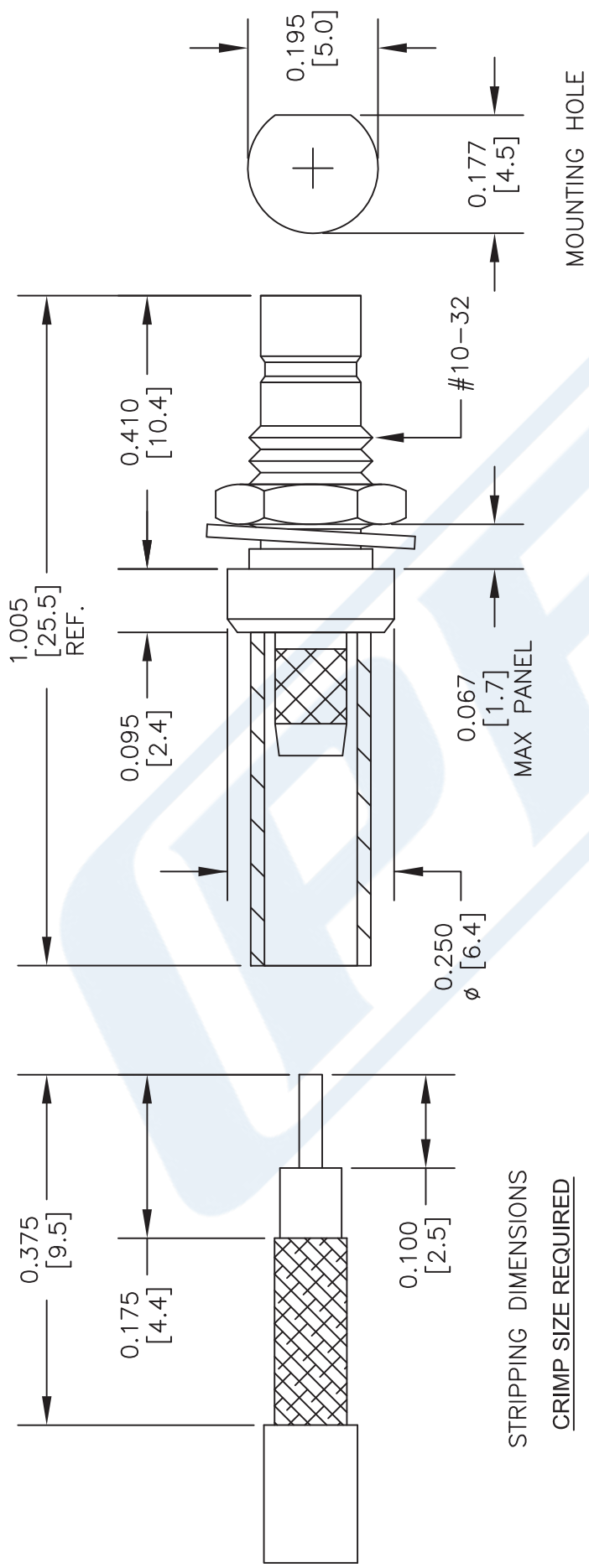
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URL: <http://www.pasternack.com/smb-jack-rg188-ds-rg316-ds-connector-pe45159-p.aspx>

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PE45159 CAD Drawing

SMB Jack Bulkhead Mount Connector Crimp/Solder  
Attachment for RG188-DS, RG316-DS



DWG TITLE

PE45159

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.

FSCM NO. 53919

CAD FILE 031815

SCALE N/A

SIZE A

2233

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE

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## Flexible RG316-DS Coax Cable Double Shielded with Tan FEP Jacket

### RF Cables Technical Data Sheet

### RG316-DS

#### Configuration

- Flexible Cable
- 2 Shield(s)

#### Electrical Specifications

| Description                   | Minimum | Typical       | Maximum | Units        |
|-------------------------------|---------|---------------|---------|--------------|
| Frequency Range               | DC      |               | 3       | GHz          |
| Impedance                     |         | 50            |         | Ohms         |
| Velocity of Propagation       |         | 69.5          |         | %            |
| Shielding Effectiveness       | 85      |               |         | dB           |
| Operating Voltage (AC)        |         |               | 1,200   | Vrms         |
| Inner Conductor DC Resistance |         |               | 83.82   | Ohms/1000ft  |
| Outer Conductor DC Resistance |         |               | 5.33    | Ohms/1000ft  |
| Nominal Capacitance           |         | 28.96 [95.01] |         | pF/ft [pF/m] |
| Insulation Resistance         | 304.8   |               |         | MOhms/1000ft |

#### Performance by Frequency Band

| Description           | F1    | F2    | F3     | F4    | F5     | Units    |
|-----------------------|-------|-------|--------|-------|--------|----------|
| Frequency             | 0.1   | 0.4   | 1      | 2     | 3      | GHz      |
| Attenuation, Max      | 10.97 | 20.97 | 37.95  | 45.05 | 57.94  | dB/100ft |
|                       | 35.99 | 68.8  | 124.51 | 147.8 | 190.09 | dB/100m  |
| Attenuation, Typ      | 8.29  | 17.5  | 29     | 39.41 | 53.55  | dB/100ft |
|                       | 27.2  | 57.41 | 95.14  | 129.3 | 175.69 | dB/100m  |
| Input Power (CW), Max | 375   | 185   | 120    | 85    | 65     | Watts    |

#### Mechanical Specifications

|                                 |                          |
|---------------------------------|--------------------------|
| Diameter                        | 0.114 in [2.9 mm]        |
| Weight                          | 0.015 lbs/ft [0.02 Kg/m] |
| Min. Bend Radius (Installation) | 0.59 in [14.99 mm]       |
| Min. Bend Radius (Repeated)     | 1.57 in [39.88 mm]       |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible RG316-DS Coax Cable Double Shielded with Tan FEP Jacket RG316-DS](#)

## Flexible RG316-DS Coax Cable Double Shielded with Tan FEP Jacket

### RF Cables Technical Data Sheet

**RG316-DS**

#### Construction Specifications

| Description     | Material and Plating                 | Diameter          |
|-----------------|--------------------------------------|-------------------|
| Inner Conductor | Copper Clad Steel, Silver, 7 Strands | 0.02 in 0.51 mm   |
| Conductor Type  | Stranded                             |                   |
| Dielectric      | PTFE                                 | 0.06 in [1.52 mm] |
| First Shield    | Silver Plated Copper Braid           |                   |
| Second Shield   | Silver Plated Copper Braid           | 0.094 in 2.39 mm  |
| Jacket          | FEP, Tan                             | 0.114 in [2.9 mm] |

#### Environmental Specifications

##### Temperature

Operating Range

-55 to +200 deg C

Storage Range

0 to +40 deg C

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

#### Plotted and Other Data

Notes:

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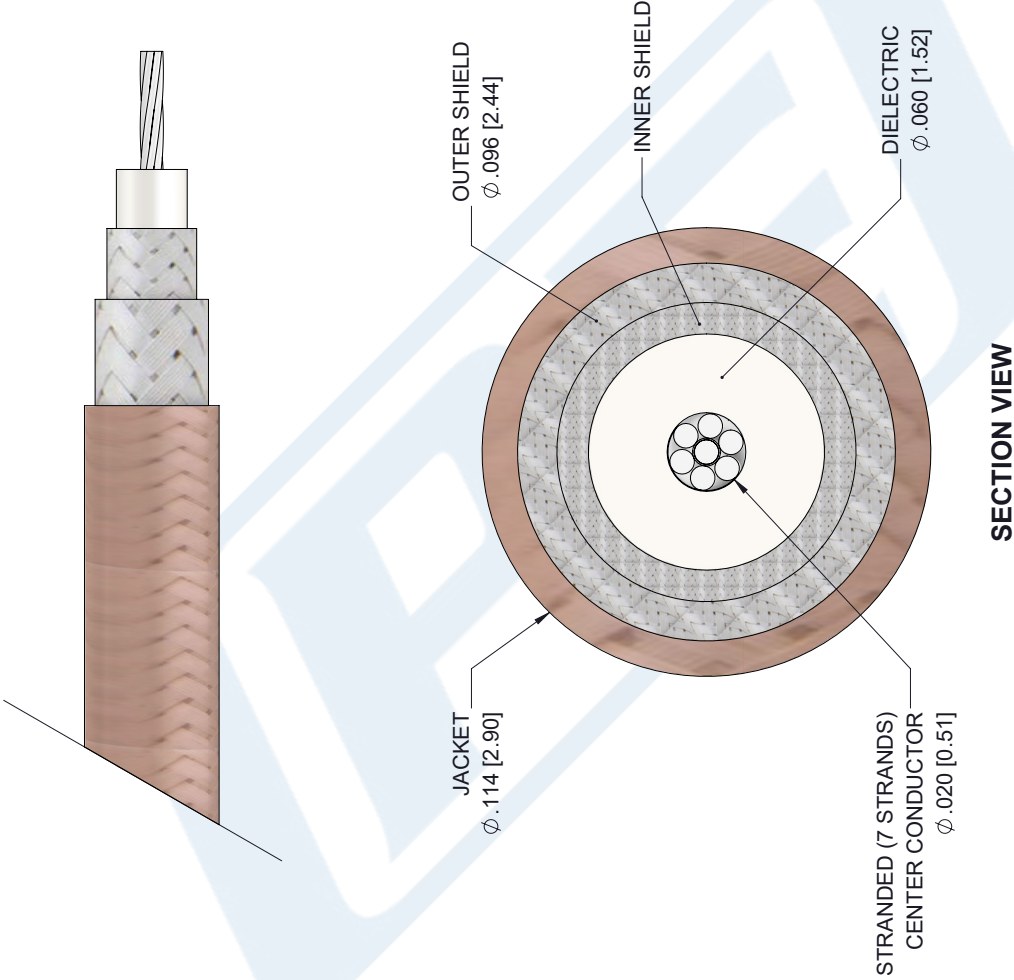
URL: <https://www.pasternack.com/flexible-0.114-rg316-ds-50-ohm-coax-cable-fep-jacket-rg316-ds-p.aspx>

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RG316-DS CAD Drawing

Flexible RG316-DS Coax Cable Double Shielded with Tan FEP Jacket

| REVISIONS |                       |          |          |
|-----------|-----------------------|----------|----------|
| REV.      | DESCRIPTION           | DATE     | APPROVED |
| 1.1       | PCR RG316-DS 20190701 | 07/15/19 | S.ELLIS  |



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

|                                          |       |                                                                                                                                                                                         |             |
|------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
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| SIZE                                     | CAGE  | DRAWN BY                                                                                                                                                                                | PART NUMBER |
| A                                        | 53919 | K.Dang                                                                                                                                                                                  | RG316-DS    |
|                                          |       |                                                                                                                                                                                         | REV         |
|                                          |       |                                                                                                                                                                                         | A           |

|                                                                                                                        |     |    |   |
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