



## Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3C4942-12**

#### Configuration

- Connector 1: Slide-On BMA Plug Bulkhead
- Connector 2: SMA Male
- Cable Type: RG316

#### Features

- Max Frequency 3 GHz
- 69% Phase Velocity
- FEP Jacket
- Good VSWR of 1.4:1
- Gold Plated BMA Contacts
- Low Engagement Force BMA interface
- In stock and ready to ship

#### Applications

- General Purpose
- Laboratory Use BMA Cable RF Backplanes
- Blind Mate BMA Test
- Rack and Panel
- Phased Array Interconnects
- High Speed Switching Networks

#### Description

Pasternack's BMA cable assemblies using RG316/U Coax are part of our full line of RF components available for same-day shipping. These BMA cable assemblies are designed to connect BMA system components, BMA racks, or BMA backplanes, delivering signal frequencies as high as 22 GHz. Our family of BMA cables can also be used to connect switching networks or phase-matched antenna arrays where low loss BMA interconnects are desired. If none of our standard options fit your application, you can specify your own custom BMA cable assembly using Pasternack's online Cable Creator.

Our BMA cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide BMA cabling or blind mate rack connections, Pasternack has the right cable assemblies 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      |         | 3       | GHz   |
| VSWR                    |         |         | 1.4:1   |       |
| Return Loss             |         |         | 15.56   | dB    |
| Velocity of Propagation |         | 69      |         | %     |
| Operating Voltage (AC)  |         |         | 250     | Vrms  |
| Jacket Spark            |         |         | 2,000   | Vrms  |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax PE3C4942-12](#)



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**Specifications by Frequency**

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 3    | GHz   |
| Insertion Loss (Typ.) | 0.31 | 0.35 | 0.47 | 0.58 | 0.78 | dB    |

**Mechanical Specifications**

**Cable Assembly**

|          |                  |
|----------|------------------|
| Length*  | 12 in [304.8 mm] |
| Diameter | 0.315 in [8 mm]  |

**Cable**

|                                      |                            |
|--------------------------------------|----------------------------|
| Cable Type                           | RG316                      |
| Impedance                            | 50 Ohms                    |
| Inner Conductor Type                 | Stranded                   |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver  |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 1                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Jacket Material                      | FEP, Tan                   |
| Jacket Diameter                      | 0.098 in [2.49 mm]         |

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**Connectors**

| Description                          | Connector 1                | Connector 2        |
|--------------------------------------|----------------------------|--------------------|
| Type                                 | BMA Plug Bulkhead          | SMA Male           |
| Specification                        |                            | MIL-STD-348A       |
| Impedance                            | 50 Ohms                    | 50 Ohms            |
| Connection Method                    | Slide-On                   |                    |
| Contact Material and Plating         | Beryllium Copper, Gold     | Brass, Gold        |
| Contact Plating Specification        | 51.18µ in. minimum         | 30 µin minimum     |
| Dielectric Type                      | PTFE                       | PTFE               |
| Outer Conductor Material and Plating | Passivated Stainless Steel |                    |
| Body Material and Plating            | Passivated Stainless Steel | Brass, Nickel      |
| Body Plating Specification           |                            | 100 µin minimum    |
| Coupling Nut Material and Plating    |                            | Brass, Nickel      |
| Coupling Nut Plating Specification   |                            | 100 µin minimum    |
| Hex Size                             | 8 mm                       | 5/16 inch          |
| Torque                               |                            | 3 in-lbs [0.34 Nm] |

**Mechanical Specification Notes:**

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

**Environmental Specifications**

**Temperature**

Operating Range -55 to +125 deg C

**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: [Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax PE3C4942-12](#)



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### Typical Performance Data



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**PE3C4942-12**

**How to Order**

Part Number Configuration:

**PE3C4942**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: PE3C4942-12 = 12 inches long cable  
PE3C4942-100cm = 100 cm long cable

Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax 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.

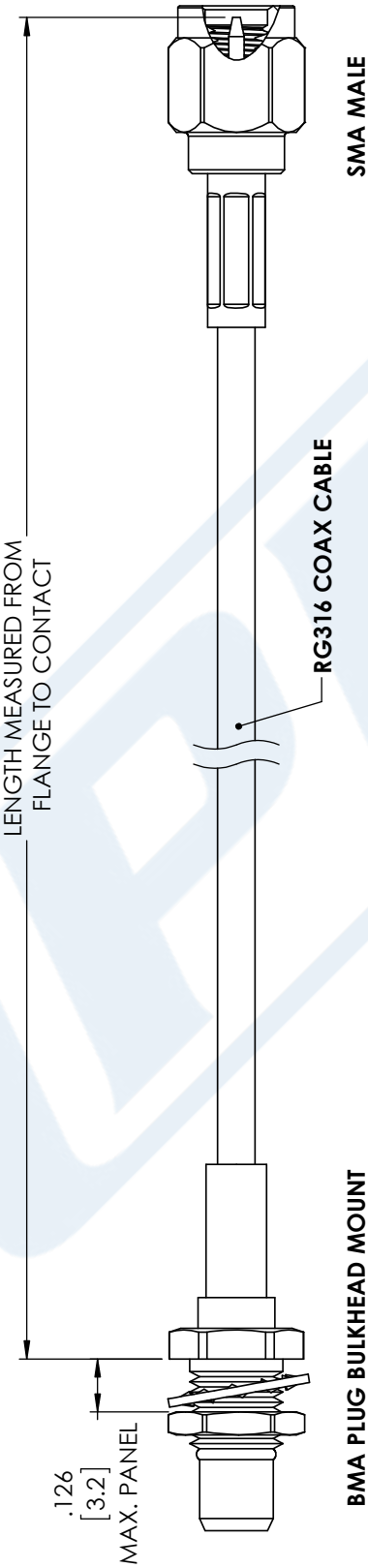
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax PE3C4942-12](https://www.pasternack.com/bma-plug-sma-male-rg316u-cable-assembly-pe3c4942-12-p.aspx)

URL: <https://www.pasternack.com/bma-plug-sma-male-rg316u-cable-assembly-pe3c4942-12-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.

PE3C4942-12 CAD Drawing

Slide-On BMA Plug Bulkhead to SMA Male Cable 12 Inch Length Using RG316 Coax



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

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



**PASTERNAK**<sup>®</sup>

THE ENGINEER'S RF SOURCE

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|           |          |
|-----------|----------|
| DWG TITLE | PE3C4942 |
| CAGE CODE | 53919    |

|                                                                                                                                                                                     |          |       |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------|
| NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |          |       |        |
| CAD FILE                                                                                                                                                                            | 12/27/17 | SCALE | N/A    |
| SIZE                                                                                                                                                                                | A        |       | CN2245 |