



#### RF Cable Assemblies Technical Data Sheet

PE3C4939

# Configuration

- Connector 1: Slide-On BMA Plug Bulkhead
   Connector 2: Slide-On BMA Jack 2 Hole Flange
- 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.

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 Slide-On BMA Jack 2 Hole Flange Cable Using RG316 Coax PE3C4939

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451





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## **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR		735	1.4:1	
Return Loss			15.56	dB
Velocity of Propagation		69		%
Operating Voltage (AC)			250	Vrms
Dielectric Withstanding Voltage (AC)			750	Vrms
Jacket Spark			2,000	Vrms
Channel-to-Channel Insertion Loss Match		58		dB

## **Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.11	0.15	0.27	0.38	0.58	dB/ft
	0.36	0.49	0.89	1.25	1.9	dB/m

**Electrical Specification Notes:** 

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

## **Mechanical Specifications**

### **Cable Assembly**

Diameter 0.75 in [19.05 mm]

Cable

Cable TypeRG316Impedance50 OhmsInner Conductor TypeStranded

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  BMA Jack 2 Hole Flange	
Туре	BMA Plug Bulkhead		
Impedance	50 Ohms	50 Ohms	
Connection Method	Slide-On	Slide-On	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	
Contact Plating Specification	51.18µ in. minimum		
Dielectric Type	PTFE	PTFE	
Outer Conductor Material and Plating	Passivated Stainless Steel	Beryllium Copper, Gold	
Body Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal	
Hex Size	8 mm		

Mechanical Specification Notes:

#### **Environmental Specifications**

**Temperature** 

Operating Range

-55 to +125 deg C

Compliance Certifications (see product page for current document)

#### **Plotted and Other Data**

Notes:

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

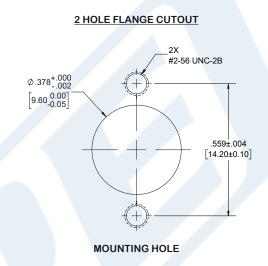




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## Typical Performance Data



#### **BMA PLUG BULKHEAD CUTOUT**



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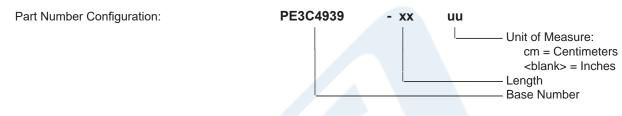




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#### **How to Order**



Example: PE3C4939-12 = 12 inches long cable PE3C4939-100cm = 100 cm long cable

Slide-On BMA Plug Bulkhead to Slide-On BMA Jack 2 Hole Flange Cable 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.

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URL: https://www.pasternack.com/bma-plug-bma-jack-rg316u-cable-assembly-pe3c4939-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.

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**PE3C4939 CAD Drawing**Slide-On BMA Plug Bulkhead to Slide-On BMA Jack 2 Hole Flange Cable Using RG316 Coax

