



## SMA Female Bulkhead to SMP Female Right Angle Cable 50 cm Length Using RG178 Coax with HeatShrink

### RF Cable Assemblies Technical Data Sheet

PE3W05697/HS-50CM

#### Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: SMP Female Right Angle
- Cable Type: RG178

#### Features

- Max Frequency 3 GHz
- 70% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W05697/HS-50CM SMA female bulkhead to SMP female right angle 50 cm cable using RG178 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack SMA to SMP cable assembly has a female to female gender configuration with 50 ohm flexible RG178 coax. The PE3W05697/HS-50CM SMA female to SMP female cable assembly operates to 3 GHz. The right angle SMP interface on the RG178 cable allows for easier connections in tight spaces. Our RF cable assembly with SMA bulkhead interface 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.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		70		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]

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 to SMP Female Right Angle Cable 50 cm Length Using RG178 Coax with HeatShrink PE3W05697/HS-50CM](#)



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**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	3	GHz
Insertion Loss (Max.)	0.65	0.8	1.03	1.45	1.59	dB

**Electrical Specification Notes:**

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated loss of 0.3dB of connector loss.

**Mechanical Specifications**

**Cable Assembly**

Length\* 19.68 in [499.87 mm]  
Diameter 0.433 in [11 mm]

**Cable**

Cable Type RG178  
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 0.072 in [1.83 mm]  
  
Repeated Minimum Bend Radius 0.4 in [10.16 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Female Bulkhead	SMP Female Right Angle
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification		MIL-DTL-45204
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Gold	Beryllium Copper, Gold
Outer Conductor Plating Specification		MIL-DTL-45204
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification		MIL-DTL-45204
Coupling Nut Material and Plating	Brass, Gold	

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 +155 deg C

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

**Plotted and Other Data**

Notes:

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**How to Order**

Part Number Configuration:

**PE3W05697/HS - xx uu**

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

Example: PE3W05697/HS-12 = 12 inches long cable  
PE3W05697/HS-100cm = 100 cm long cable

SMA Female Bulkhead to SMP Female Right Angle Cable 50 cm Length Using RG178 Coax with HeatShrink 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: [SMA Female Bulkhead to SMP Female Right Angle Cable 50 cm Length Using RG178 Coax with HeatShrink PE3W05697/HS-50CM](https://www.pasternack.com/sma-female-smp-female-rg178bu-cable-assembly-pe3w05697-hs-50cm-p.aspx)

URL: <https://www.pasternack.com/sma-female-smp-female-rg178bu-cable-assembly-pe3w05697-hs-50cm-p.aspx>

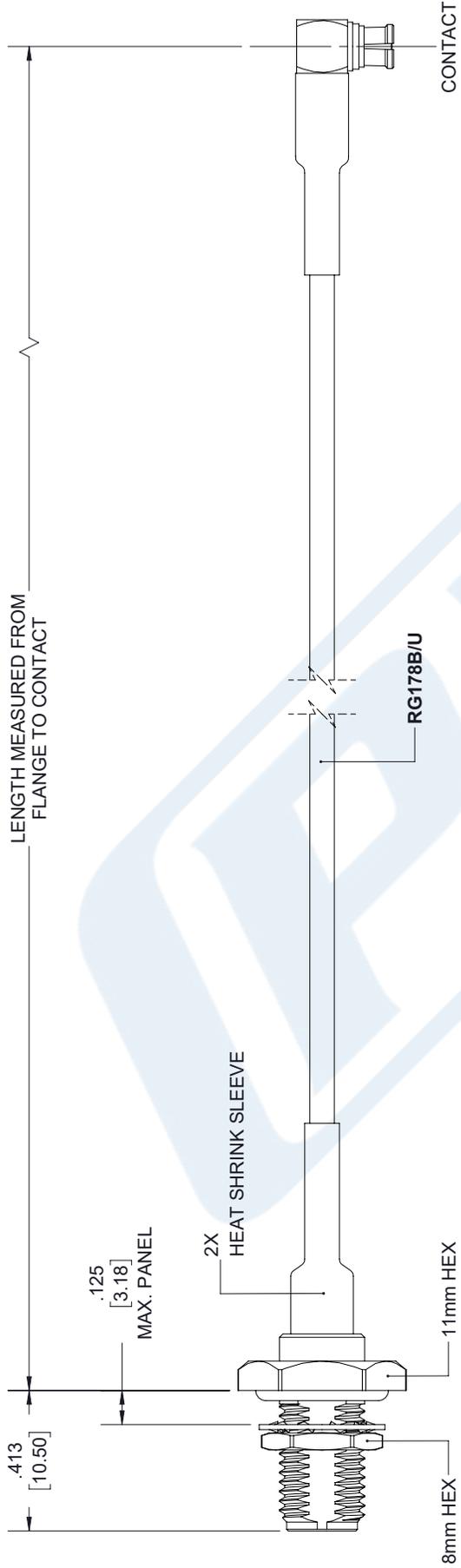
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such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

# PE3W05697/HS-50CM CAD Drawing

## SMA Female Bulkhead to SMP Female Right Angle Cable

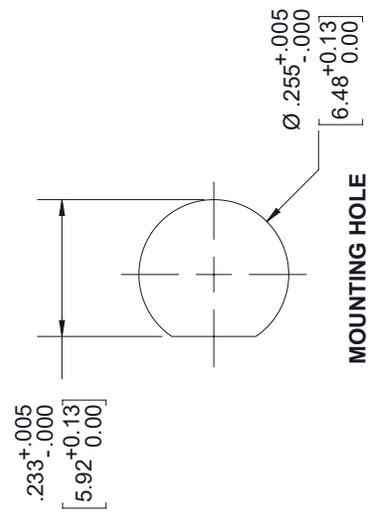
### 50 cm Length Using RG178 Coax with HeatShrink

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	05/02/19	S.ELLIS



**SMA FEMALE BULKHEAD**

**SMP FEMALE RA**



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>X±.2</td> <td>[5.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX±.01</td> <td>[.25]</td> <td>±.132</td> </tr> <tr> <td>.XXX±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <p>THIRD-ANGLE PROJECTION</p>	X±.2	[5.08]	FRACTIONS	.XX±.01	[.25]	±.132	.XXX±.005	[.13]	ANGLES ± 1°	<p><b>PE PASTERNAK</b> an INFINITO brand</p> <p>Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1,949,261,1920   1,866,727,8376 Fax: 1,949,261,7451 www.pasternack.com   e-mail: sales@pasternack.com</p>	<p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p>
	X±.2	[5.08]	FRACTIONS								
.XX±.01	[.25]	±.132									
.XXX±.005	[.13]	ANGLES ± 1°									
<p>SIZE: A</p> <p>CAGE: 53919</p> <p>DRAWN BY: K.DANG</p> <p>PART NUMBER: PE3W05697/HS</p>	<p>SHEET 1 OF 1</p> <p>SCALE: N/A</p>										

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