



## SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W08023-60**

#### Configuration

- Connector 1: SSMC Plug
- Connector 2: SMB Jack Bulkhead
- Cable Type: RG178

#### Features

- Max Frequency 2 GHz
- 70% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W08023-60 SSMC plug to SMB jack bulkhead 60 inch 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 SSMC to SMB cable assembly has a plug to jack gender configuration with 50 ohm flexible RG178 coax. The PE3W08023-60 SSMC plug to SMB jack cable assembly operates to 2 GHz. Our RF cable assembly with SMB 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax PE3W08023-60](#)



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#### Electrical Specifications

| Description             | Minimum | Typical      | Maximum | Units        |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range         | DC      |              | 2       | GHz          |
| VSWR                    |         |              | 1.4:1   |              |
| Velocity of Propagation |         | 70           |         | %            |
| Capacitance             |         | 29.4 [96.46] |         | pF/ft [pF/m] |
| Operating Voltage (AC)  |         |              | 250     | Vrms         |

#### Specifications by Frequency

| Description           | F1   | F2  | F3   | F4   | F5   | Units |
|-----------------------|------|-----|------|------|------|-------|
| Frequency             | 0.05 | 0.1 | 0.25 | 0.5  | 2    | GHz   |
| Insertion Loss (Max.) | 0.75 | 1.1 | 1.45 | 1.93 | 3.48 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss is estimated as 0.3 dB per SSMC plug connector and 0.1 dB per SMB jack bulkhead connector.

#### Mechanical Specifications

##### Cable Assembly

|          |                    |
|----------|--------------------|
| Length*  | 60 in [152.4 cm]   |
| Diameter | 0.237 in [6.02 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                                 | SSMC Plug              | SMB Jack Bulkhead |
| Specification                        |                        | MIL-STD-348A      |
| Impedance                            | 50 Ohms                | 50 Ohms           |
| Mating Cycles                        | 500                    |                   |
| Contact Material and Plating         | Beryllium Copper, Gold | Brass, Gold       |
| Contact Plating Specification        | MIL-G-45204            | 30 µin minimum    |
| Dielectric Type                      | Teflon                 | PTFE              |
| Outer Conductor Material and Plating | Beryllium Copper, Gold | Brass, Nickel     |
| Body Material and Plating            | Beryllium Copper, Gold | Brass, Nickel     |
| Body Plating Specification           | MIL-G-45204            | 100 µin minimum   |
| Coupling Nut Material and Plating    | Beryllium Copper, Gold |                   |
| Coupling Nut Plating Specification   | MIL-G-45205            |                   |
| Torque                               | 1.75 in-lbs [0.2 Nm]   |                   |

#### Environmental Specifications

##### Temperature

Operating Range

-40 to +60 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: [SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax PE3W08023-60](#)



## SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W08023-60**

#### How to Order

Part Number Configuration:

**PE3W08023**

- **xx**

**uu**

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

Example: PE3W08023-12 = 12 inches long cable  
PE3W08023-100cm = 100 cm long cable

SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 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.

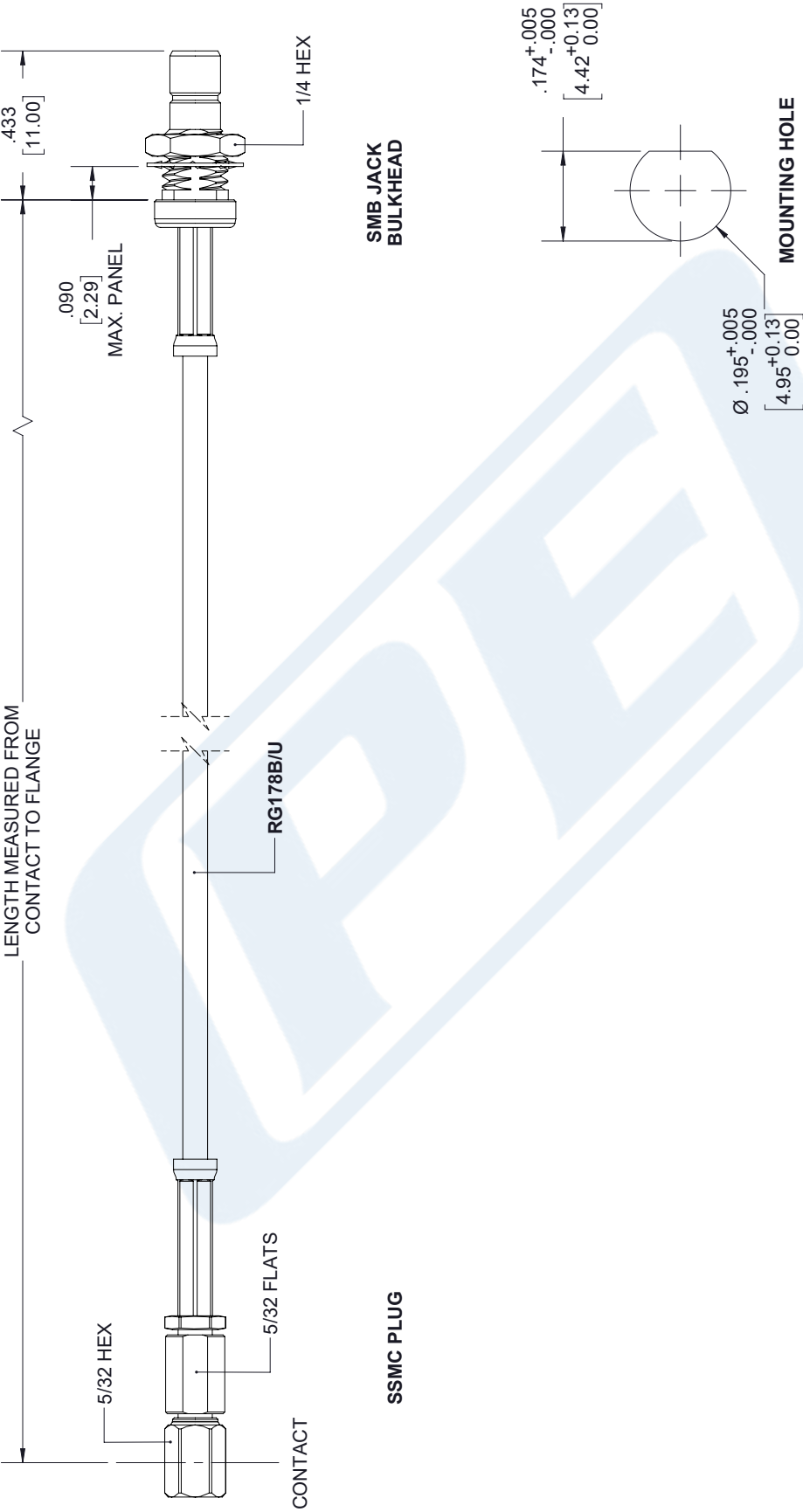
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax PE3W08023-60](https://www.pasternack.com/ssmc-plug-smb-jack-rg178bu-cable-assembly-pe3w08023-60-p.aspx)

URL: <https://www.pasternack.com/ssmc-plug-smb-jack-rg178bu-cable-assembly-pe3w08023-60-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.

PE3W08023-60 CAD Drawing  
SSMC Plug to SMB Jack Bulkhead Cable 60 Inch Using RG178 Coax

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/22/2020 | SELLIS   |



|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| UNLESS OTHERWISE SPECIFIED<br>LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS |                |
| TOLERANCES:                                                                                      |                |
| .X = ± .2                                                                                        | [5.08]         |
| .XX = ± .02                                                                                      | [.51]          |
| .XXX = ± .005                                                                                    | [.13]          |
| CABLE LENGTH (L) TOLERANCES:                                                                     |                |
| L ≤ 12 [305]                                                                                     | ± 1 [25] / -0  |
| 12 [305] < L ≤ 60 [1524]                                                                         | ± 2 [51] / -0  |
| 60 [1524] < L ≤ 120 [3048]                                                                       | ± 4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620]                                                                      | ± 6 [152] / -0 |
| 300 [7620] < L = +5% / -0                                                                        |                |
| ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY.                                                  |                |

|                                                                                                                                                                                                                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
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| SHEET 1 OF 1                                                                                                                                                                                                                          |  |
| SCALE N/A                                                                                                                                                                                                                             |  |
| REV A                                                                                                                                                                                                                                 |  |
| ITEM NO. PE3W08023                                                                                                                                                                                                                    |  |
| DRAWN BY K.DANG                                                                                                                                                                                                                       |  |
| SIZE A                                                                                                                                                                                                                                |  |
| CAGE CODE 53919                                                                                                                                                                                                                       |  |
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