



SSMC Plug to SMB Jack Bulkhead Cable 50 cm Using RG178 Coax

RF Cable Assemblies Technical Data Sheet

PE3W08023-50CM

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 PE3W08023-50CM SSMC plug to SMB jack bulkhead 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 SSMC to SMB cable assembly has a plug to jack gender configuration with 50 ohm flexible RG178 coax. The PE3W08023-50CM 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 50 cm Using RG178 Coax PE3W08023-50CM](#)



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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.)	0.52	0.63	0.74	0.89	1.39	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*	19.68 in [499.87 mm]
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:

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RF Cable Assemblies Technical Data Sheet

PE3W08023-50CM

How to Order

Part Number Configuration:

PE3W08023

- **xx**

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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 50 cm 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.

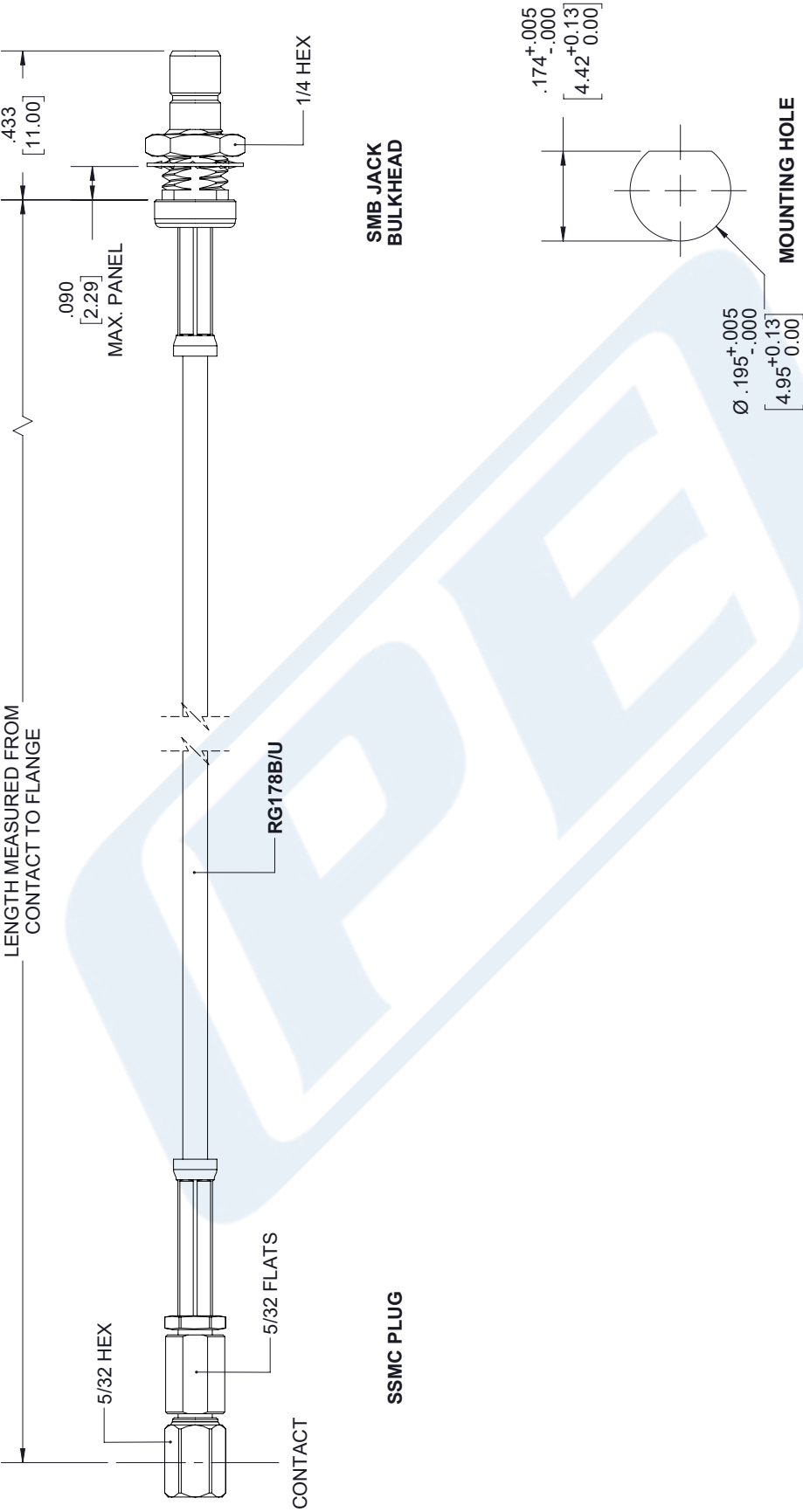
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug to SMB Jack Bulkhead Cable 50 cm Using RG178 Coax PE3W08023-50CM](https://www.pasternack.com/ssmc-plug-smb-jack-rg178bu-cable-assembly-pe3w08023-50cm-p.aspx)

URL: <https://www.pasternack.com/ssmc-plug-smb-jack-rg178bu-cable-assembly-pe3w08023-50cm-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.

PE3W08023-50CM CAD Drawing
SSMC Plug to SMB Jack Bulkhead Cable 50 cm Using RG178 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	1/22/2020	S.ELLIS



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ± .2	[5.08]
.XX = ± .02	[.51]
.XXX = ± .005	[.13]
ANGLES ± 1°	
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 ARE FOR REFERENCE ONLY.	

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

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an INFINITI® brand

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