



## Snap-On MMBX Plug to SMA Male Cable Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

PE3C3989

#### Configuration

- Connector 1: Snap-On MMBX Plug
- Connector 2: SMA Male
- Cable Type: RG178

#### Features

- Max. Operating Frequency of 3 GHz
- Snap-On mating

#### Applications

- General Purpose Test
- PCB Probing
- PCB Testing
- PCB-to-Panel

#### Description

Pasternack's MMBX cable assemblies are part of our full line of RF components available for same-day shipping. These MMBX cable assemblies are designed to connect MMBX system components or test connections, delivering signal frequencies as high as 3 GHz. Our family of MMBX cables can also be used to connect from PCB to panel, offering between series MMBX options with SMA Bulkhead, TNC Bulkhead and N Bulkhead assembly configurations. If none of our standard options fit your application, you can specify your own custom MMBX cable assembly using Pasternack's online Cable Creator.

Our MMBX 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 an I/O for a board design, or simply create a custom cable assembly configuration, 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		-15.563		dB
Insertion Loss			0.78 2.56	dB/ft dB/m
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: [Snap-On MMBX Plug to SMA Male Cable Using RG178 Coax PE3C3989](#)



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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 (Max.)	0.14	0.22	0.31	0.44	0.78	dB/ft
	0.46	0.72	1.02	1.44	2.56	dB/m
						dB/m

#### Electrical Specification Notes:

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

#### Mechanical Specifications

##### Cable Assembly

Diameter 0.315 in [8 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	MMBX Plug	SMA Male
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Connection Method	Snap-On	
Mating Cycles	100	
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification		50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Gold	
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification		100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		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 +155 deg C

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

#### Plotted and Other Data

Notes:

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## Snap-On MMBX Plug to SMA Male Cable Using RG178 Coax

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#### How to Order

Part Number Configuration:

**PE3C3989**

- **xx**

**uu**

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

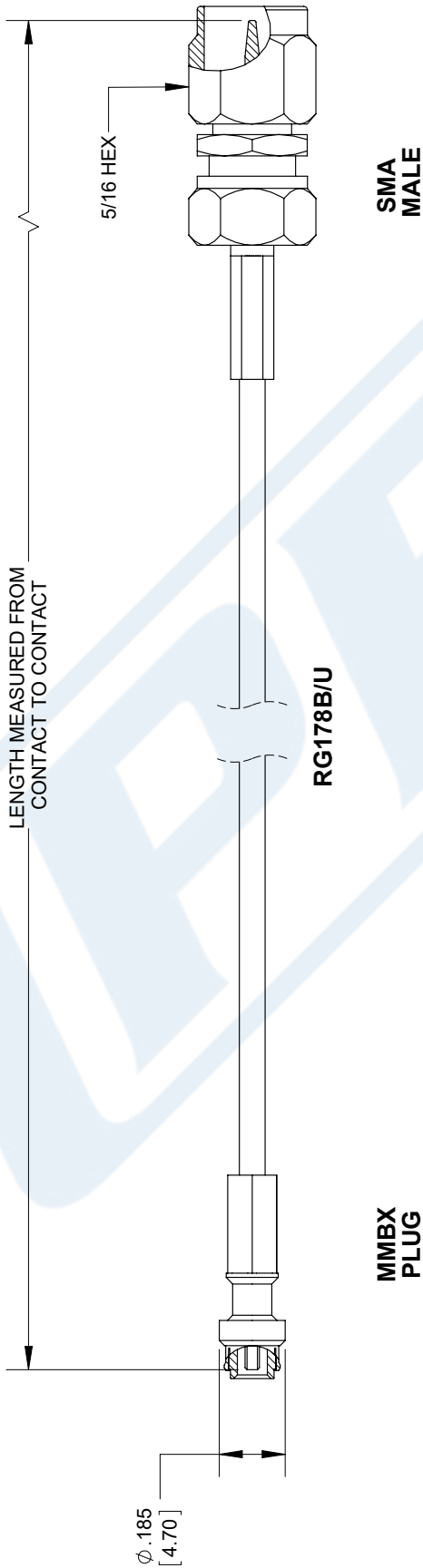
Example: PE3C3989-12 = 12 inches long cable  
PE3C3989-100cm = 100 cm long cable

Snap-On MMBX Plug to SMA Male Cable 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: [Snap-On MMBX Plug to SMA Male Cable Using RG178 Coax PE3C3989](#)

URL: <https://www.pasternack.com/mmbx-plug-sma-male-rg178bu-cable-assembly-pe3c3989-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.



STANDARD TOLERANCES	
.X	$\pm 0.2$
.XX	$\pm 0.01$
.XXX	$\pm 0.005$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE	PE3C3989
CAGE CODE	53919

NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME 3. DIMENSIONS ARE IN INCHES [mm].	CAD FILE	052217	SCALE	N/A	SIZE	A	9999
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