



## SMA Female Bulkhead to MMCX Plug Right Angle Cable 24 Inch Length Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

PE3C3821-24

#### Configuration

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

#### Features

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

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C3821-24 SMA female bulkhead to MMCX plug right angle 24 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 SMA to MMCX cable assembly has a female to plug gender configuration with 50 ohm flexible RG178 coax. The PE3C3821-24 SMA female to MMCX plug cable assembly operates to 3 GHz. The right angle MMCX 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 MMCX Plug Right Angle Cable 24 Inch Length Using RG178 Coax PE3C3821-24](#)



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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.)	0.72	0.91	1.19	1.7	1.87	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 insertion loss of 0.3dB of connector loss.

#### Mechanical Specifications

##### Cable Assembly

Length\* 24 in [609.6 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	MMCX Plug Right Angle
Specification		BS EN 122340
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification		30 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Gold	
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification		3 µin minimum
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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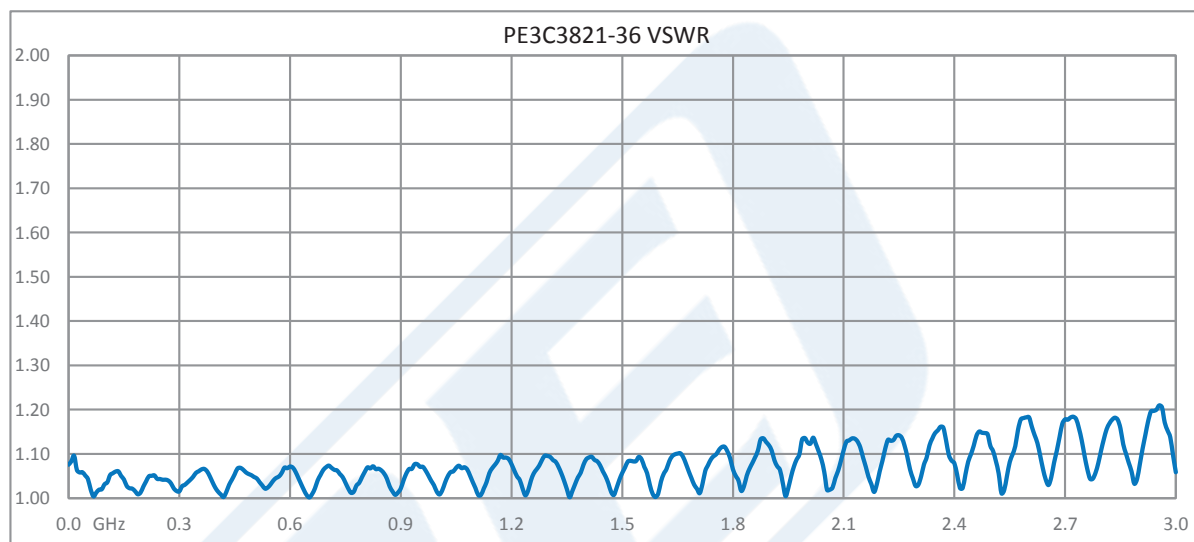


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Typical Performance Data



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#### How to Order

Part Number Configuration:

**PE3C3821**

- **xx**

**uu**

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

Example: PE3C3821-12 = 12 inches long cable  
PE3C3821-100cm = 100 cm long cable

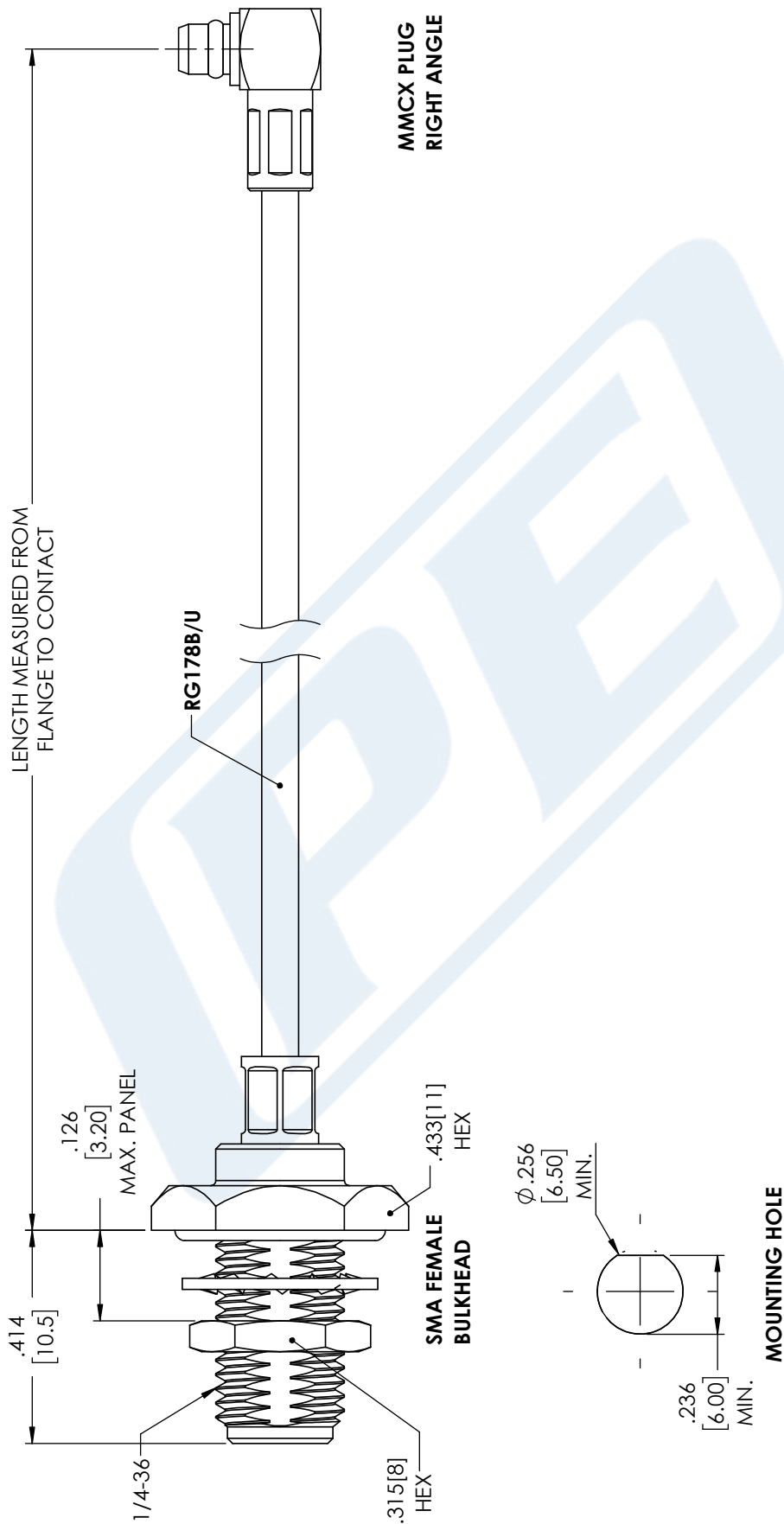
SMA Female Bulkhead to MMCX Plug Right Angle Cable 24 Inch Length Using RG178 Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead to MMCX Plug Right Angle Cable 24 Inch Length Using RG178 Coax PE3C3821-24](https://www.pasternack.com/sma-female-mmcx-plug-right-angle-cable-24-inch-length-using-rg178-coax-pe3c3821-24)

URL: <https://www.pasternack.com/sma-female-mmcx-plug-rg178bu-cable-assembly-pe3c3821-24-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.

PE3C3821-24 CAD Drawing  
SMA Female Bulkhead to MMCX Plug Right Angle  
Cable 24 Inch Length Using RG178 Coax



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].

DWG TITLE  
PE3C3821

CAGE CODE 53919

CAD FILE 09/29/18

SCALE N/A

SIZE A

CN2245

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE

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