



## SMA Male Right Angle Connector Crimp/ Solder Attachment for RG178, RG196

### RF Connectors Technical Data Sheet

PE4296

#### Configuration

- SMA Male Connector
- MIL-STD-348A
- 50 Ohms
- Right Angle Body Geometry
- RG178, RG196 Interface Type
- Crimp/Solder Attachment
- 5/16 inch Hex

#### Features

- Max. Operating Frequency 3 GHz
- Good VSWR of 1.5:1
- Gold Plated Brass Contact
- 50  $\mu$ m minimum contact plating

#### Applications

- General Purpose Test
- Custom Cable Assemblies

#### Description

Pasternack's PE4296 SMA male right angle connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 3 GHz and offers good VSWR of 1.5:1. Its right angle body geometry allows for easier connections in tight spaces.

Our SMA male right angle connector PE4296 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows 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 connector 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			1.5:1	
Operating Voltage (AC)			250	Vrms

#### Mechanical Specifications

Size	
Length	0.715 in [18.16 mm]
Width/Dia.	0.315 in [8.00 mm]
Height	0.61 in [15.49 mm]
Weight	0.016 lbs [7.26 g]
Mating Torque	3 to 5 in-lbs [0.34 to 0.57 Nm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Right Angle Connector Crimp/Solder Attachment for RG178, RG196 PE4296](#)



## SMA Male Right Angle Connector Crimp/ Solder Attachment for RG178, RG196

### RF Connectors Technical Data Sheet

PE4296

#### Material Specifications

Description	Material	Plating
Contact	Brass	Gold 50 µin minimum
Insulation	PTFE	
Body	Brass	Nickel 100 µin minimum
Coupling Nut	Brass	Nickel 100 µin minimum

#### Environmental Specifications

##### Temperature

Operating Range

-65 to +165 deg C

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

#### Plotted and Other Data

Notes:

SMA Male Right Angle Connector Crimp/Solder Attachment for RG178, RG196 from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% 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 Male Right Angle Connector Crimp/Solder Attachment for RG178, RG196 PE4296](#)

URL: <https://www.pasternack.com/sma-male-standard-rg178-rg196-connector-pe4296-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.

# PE4296 CAD Drawing

SMA Male Right Angle Connector Crimp/Solder Attachment for RG178, RG196



## STRIPPING DIMENSIONS ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN & TIN CENTER CONDUCTOR. SLIDE FERRULE OVER CABLE.
2. INSTALL CABLE INTO BODY OF CONNECTOR AND SOFT SOLDER CENTER CONDUCTOR IN PLACE.
3. CRIMP FERRULE & PRESS CAP DOWN.

## CRIMP SIZE REQUIRED

FERRULE: .100" HEX CRIMP TOOL

DWG TITLE

**PE4296**

- 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].
  4. FITS MIL-C-17 AND EQUIVALENT CABLES.

REV. -

FSCM NO. 53919

CAD FILE 071906

SCALE N/A

SIZE A

2233



**PASTERNAK®**  
Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: www.pasternack.com | E-Mail: sales@pasternack.com



# MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178

## RF Connectors Technical Data Sheet

**PE45866**

### Configuration

- MCX Plug Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG178
- Non-Magnetic Design

### Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.1:1
- Gold over Copper Plated Bronze Contact
- Magnetic Susceptibility  $10^{-5}$

### Applications

- General Purpose Test
- Custom Cable Assemblies
- Medical
- Military and Aerospace
- Quantum Computing

### Description

Pasternack's PE45866 Right Angle, MCX, Non-Magnetic, Connector is part of our full line of RF components available for same-day shipping. Our MCX plug connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.1:1. Its right angle body geometry allows for easier connections in tight spaces. Pasternack's Non Magnetic connectors are manufactured with materials that are especially adapted to non magnetism. Our non-magnetic connectors have a susceptibility of around  $10^{-5}$ , as opposed to  $10^{-2}$  for standard connectors made of brass/nickel materials. As a result, our non-magnetic connectors are transparent to the magnetic field, which means no field distortion and a higher Signal-to-Noise Ratio (SNR).

Our MCX plug right angle connector PE45866 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows 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 connector 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		6	GHz
VSWR			1.1:1	
Insertion Loss			0.5	dB
Operating Voltage (AC)			170	Vrms
Impedance		50		Ohms
Dielectric Withstanding Voltage (AC)			500	Vrms
Insulation Resistance	1,000			MOhms

### Mechanical Specifications

Size	
Length	0.47 in [11.90 mm]
Width	0.20 in [5.00 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 PE45866](#)



MCX Plug Right Angle Non-Magnetic Connector  
Crimp/Solder Attachment for RG178

**RF Connectors**  
**Technical Data Sheet**

**PE45866**

Height	0.20 in [5.00 mm]
Weight	0.00 lbs [0.90 g]
Mating Cycles	500 Cycles

**Material Specifications**

Description	Material	Plating
Contact	Bronze	Gold over Copper
Body	Bronze	Copper-Tin-Zinc Alloy

**Environmental Specifications**

**Temperature**

Operating Range	-55 to +125 deg C
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**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: [MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 PE45866](#)



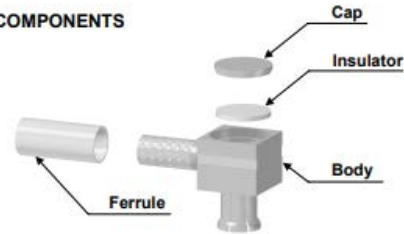
MCX Plug Right Angle Non-Magnetic Connector  
Crimp/Solder Attachment for RG178

**RF Connectors**  
**Technical Data Sheet**

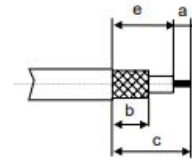
**PE45866**

**Assembly Instruction**

**COMPONENTS**



**STRIPPING DIMENSIONS**



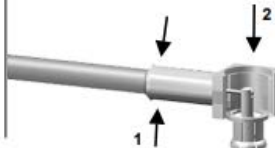
**1**

Slide the ferrule onto the cable.  
Strip the cable.  
Tin the cable inner conductor.



**4**

Crimp the ferrule with crimping tool ( see connector TDS ).  
Solder the inner conductor.



**2**

Fan the braid.



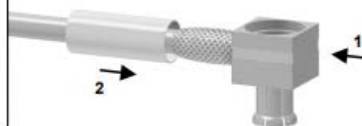
**5**

Place the insulator into the body.  
Place the cap into the body.



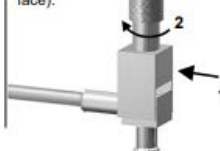
**3**

Push the connector body under the braid.  
Slide the ferrule over the braid.



**6**

Slide mounting tool R282.868.000 onto the body grooves.  
Press fit the cap turning tool handle with the adapted wrench of 7mm AF (cap in the same plane than the body square face).



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 PE45866](#)



## MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178

### RF Connectors Technical Data Sheet

**PE45866**

MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 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.

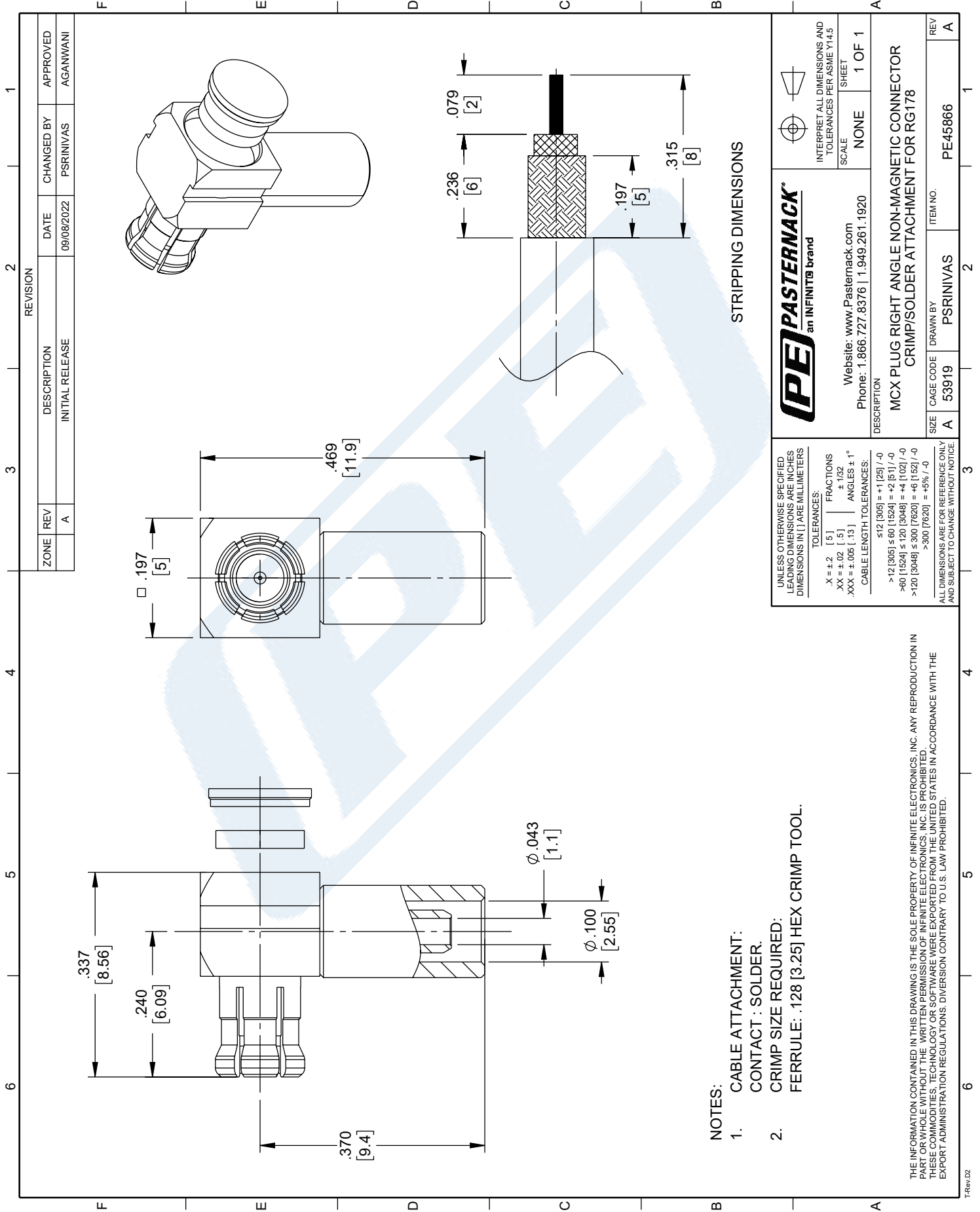
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 PE45866](https://www.pasternack.com/mcx-plug-rg178-connector-pe45866-p.aspx)

URL: <https://www.pasternack.com/mcx-plug-rg178-connector-pe45866-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.

# PE45866 CAD Drawing

MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178



# Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

## RF Cables Technical Data Sheet

RG178B/U

### Configuration

- Flexible Cable
- 1 Shield(s)

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
Impedance		50		Ohms
Velocity of Propagation		70		%
Operating Voltage (AC)			1,000	Vrms
Nominal Capacitance		29.4 [96.46]		pF/ft [pF/m]

### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.4	1	3		GHz
Attenuation, Typ	13.81	27.8	44.41	78.4		dB/100ft
	45.31	91.21	145.7	257.22		dB/100m

### Mechanical Specifications

Diameter	0.072 in [1.83 mm]
Weight	0.005 lbs/ft [0.01 Kg/m]
Min. Bend Radius (Repeated)	0.4 in [10.16 mm]

### Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, Silver, 7 Strands	0.012 in [0.3 mm]
Conductor Type	Stranded	
Dielectric	PTFE	0.034 in [0.86 mm]
First Shield	Silver Plated Copper Braid	0.051 in [1.3 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

## Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

### RF Cables Technical Data Sheet

RG178B/U

Jacket	FEP, Tan	0.072 in [1.83 mm]
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#### Environmental Specifications

##### Temperature

Operating Range -55 to +200 deg C

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

#### Plotted and Other Data

Notes:

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket 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: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

URL: <https://www.pasternack.com/flexible-0.075-rg178-50-ohm-coax-cable-fep-jacket-rg178b-u-p.aspx>

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# RG178B/U CAD Drawing

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket



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  
**RG178B/U**

CAGE CODE **53919**

SIZE A

SCALE N/A

CAD FILE 062117

2233

**PE PASTERNAK**  
 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623

Phone: (949) 261-1920 | Fax: (949) 261-7451

Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)