



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 |
|-----------------|-------------------|

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

Plotted and Other Data

Notes:

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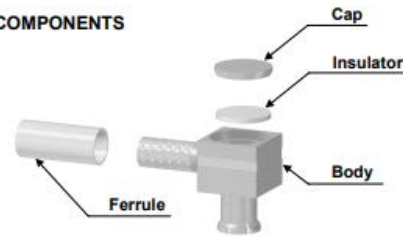
MCX Plug Right Angle Non-Magnetic Connector
Crimp/Solder Attachment for RG178

RF Connectors
Technical Data Sheet

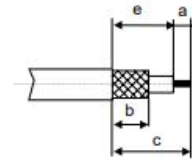
PE45866

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.



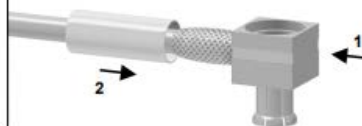
5

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



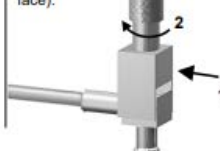
3

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).



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

RF Connectors Technical Data Sheet

PE45866

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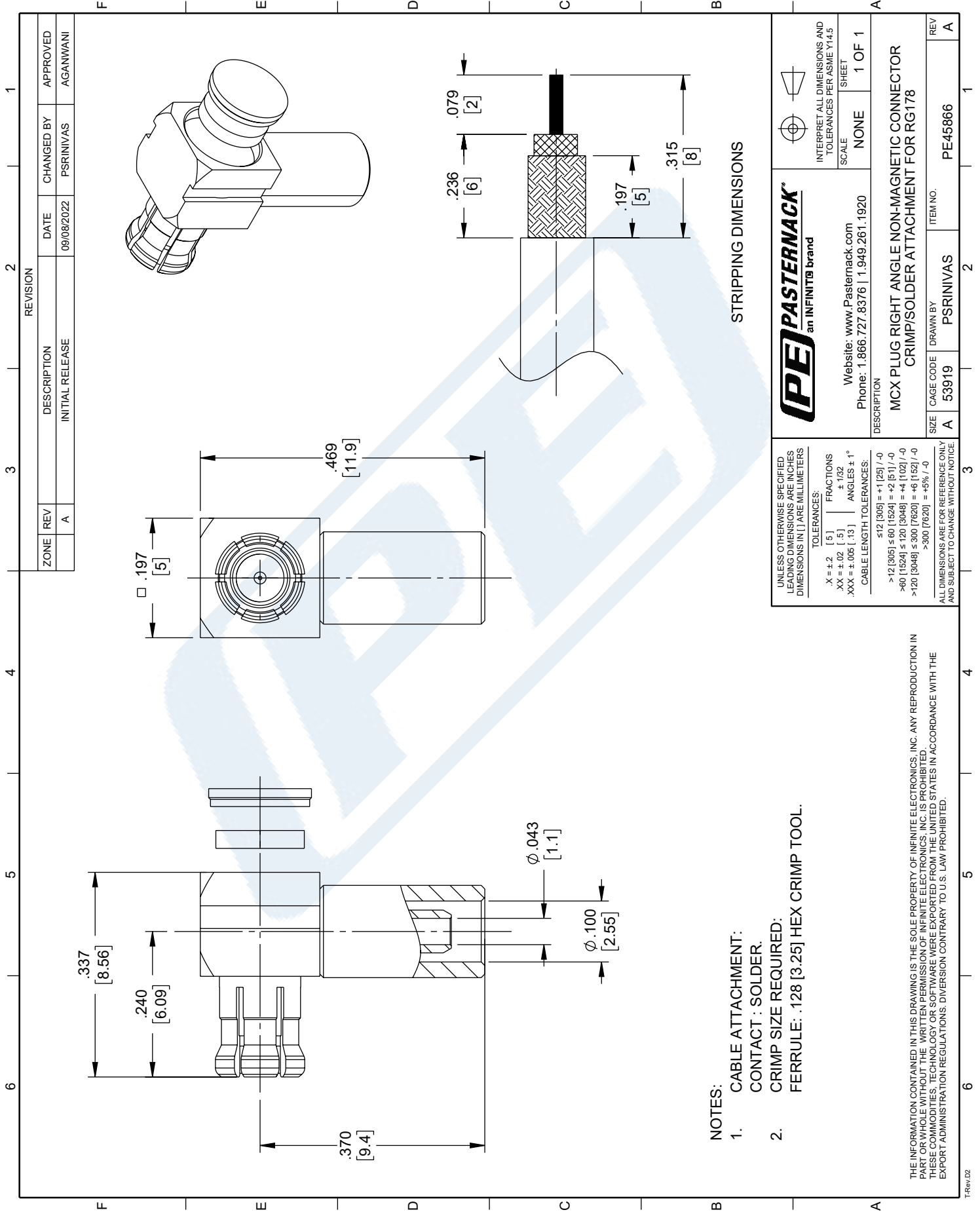
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PE45866 CAD Drawing

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





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

RF Connectors Technical Data Sheet

PE45866

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- 50 Ohms
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- Non-Magnetic Design

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Description

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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] |

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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

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

Plotted and Other Data

Notes:

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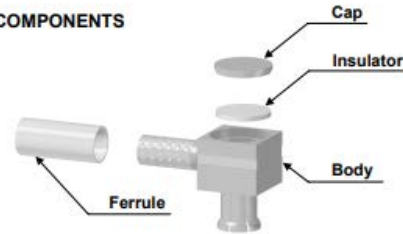
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Crimp/Solder Attachment for RG178

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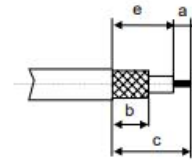
PE45866

Assembly Instruction

COMPONENTS



STRIPPING DIMENSIONS



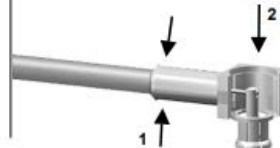
1

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.



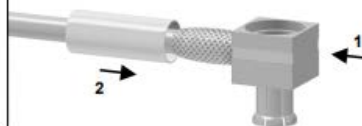
5

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



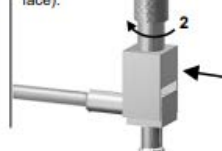
3

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

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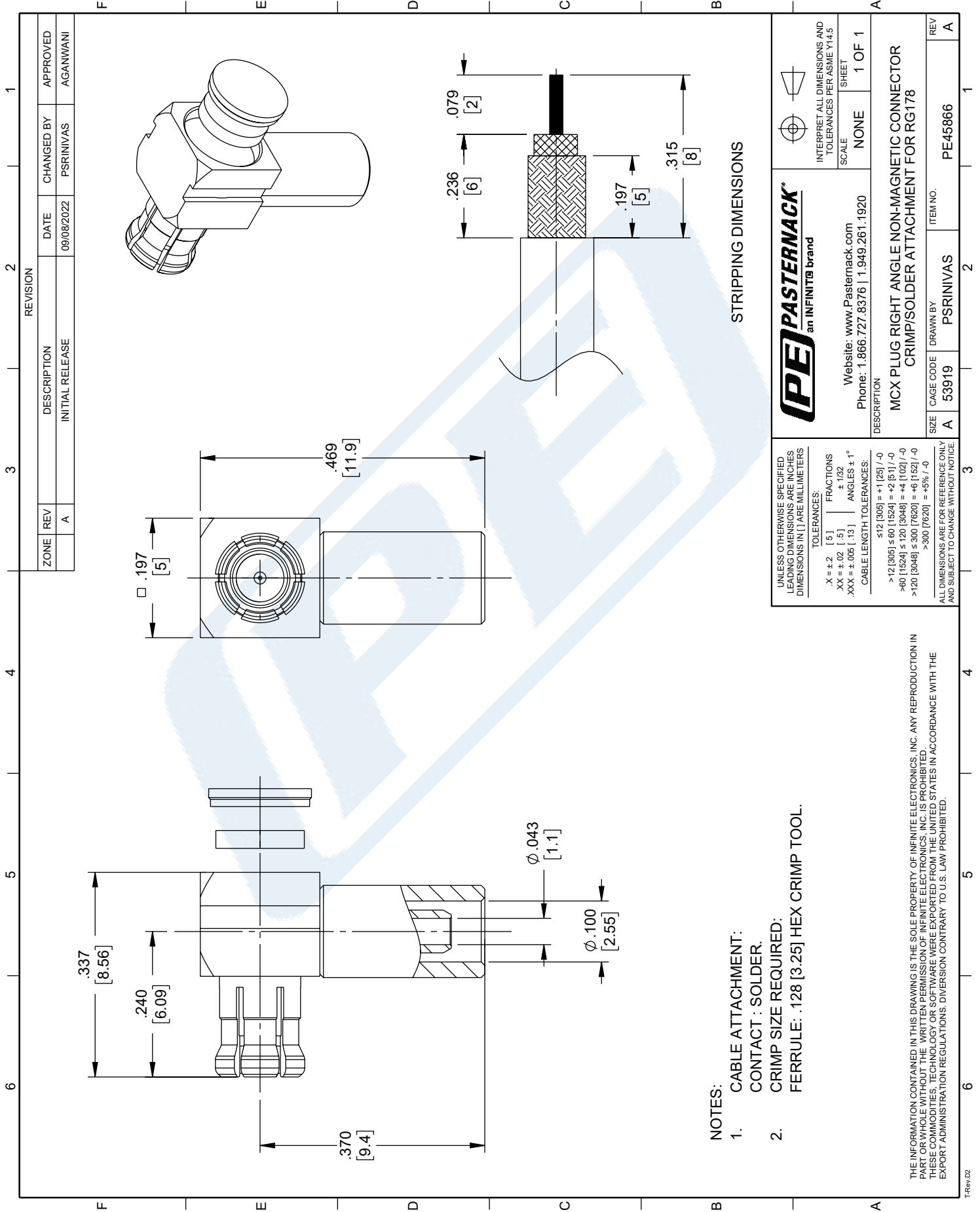
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug Right Angle Non-Magnetic Connector Crimp/Solder Attachment for RG178 PE45866](https://www.pasternack.com/mcx-plug-rg178-connector-pe45866-p.aspx)

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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] |
|--------|----------|--------------------|

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.

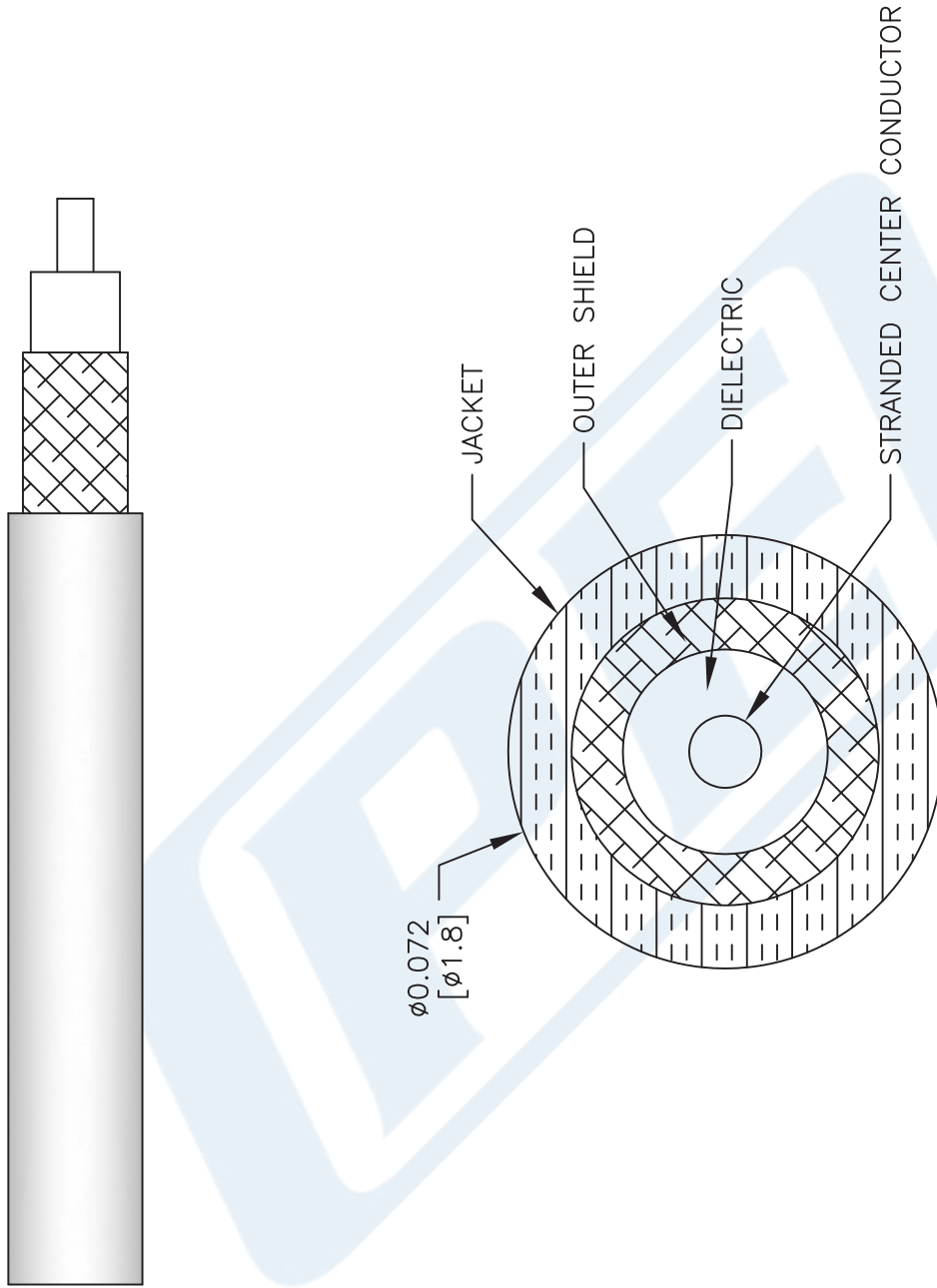
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

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

CAD FILE 062117

SCALE N/A

SIZE A

2233

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